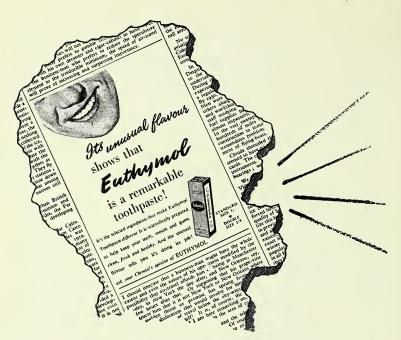
CHEMIST AND DRUGGIST

RETAILER — WHOLESALER — MANUFACTURER
SEPTEMBER 6, 1952





We're telling more people about Euthymol

— advertising on a larger scale than ever before; telling more people, in every walk of life, to consult their Chemists about toothpaste. You know the value of Euthymol. By displaying and recommending it you can win many new, regular customers.



PARKE, DAVIS & COMPANY LIMITED Hounslow, Middlesex Inc. U.S.A.



CHEMIST FINDS NEW WAY TO HELP COUNTERACT DROP IN SALE OF

UST now, when more and more chemists are experiencing a fall in demand for certain luxury products, this experience f a chemist in Liverpool is especially necessing.

LUXURIES

"For some time" he writes, "I had een wondering how to make up for the rop in demand for luxury goods. Then, ne evening at home, last summer, I appened to notice a tin of Sanilav perumed lavatory cleaner, and the idea flashed brough my mind 'how would it go in the

hop?

"Here was a particularly attractive back; a product closely linked with the two terms and the since it was made by the Ibcol people—I mew from experience that the quality was bound to be good.

"Anyway, I decided to try out a dozen ins in the shop. If they did not sell, there would be no harm done, we could quite

easily use them up in the home.

Surprised by demand

"On delivery, I put a few tins on display on the counter, and to my surprise they started selling right away and in 3 or 4 days I found I had sold out. Since then Sanilav has settled down to a regular sale of between 2 to 3 dozen tins a month. It was certainly an experiment well worth trying, and I feel fairly convinced that Sanilav would enjoy a worthwhile sale in any chemist's shop."

Sanilav is the most efficient of all



Sanilav, the new "sprinkle" lavatory cleaner with the fragrant perfume, has a really attractive pack, which makes it ideal for display in a chemist's shob.



Women of all social classes are increasingly particular about keeping their homes, hygienically fresh and fragrant—hence the rapidly growing demand for Sanilav, the perfumed lavatory cleaner.

lavatory cleaners, because it does four jobs in one. (1) Keeps the lavatory bowl and bend sparkling white right through. (2) Kills dangerous germs with its powerful disinfectant action. (3) Destroys unpleasant smells. (4) Leaves the air beautifully fresh and fragrant. All that's required with Sanilav is to sprinkle overnight and flush next morning.

IF	YOUR	WHOLE	SALER	CAN'T	SUPPLY
	Y	OU, POST	THIS	COUPO	N

We would like your representative to call

Name.....

Address.....

Post in unsealed $1\frac{1}{2}d$. stamped envelope to Ibco Products Ltd., River Road, Barking, Essex.



TeleVizor Spectacles are especially designed to eliminate "eye-strain" and to ensure restful viewing without distortion or flicker.

A scientific development by a firm of specialists.

Available in optical quality frames and clipover style, with display cards.

Enquiries to:-

GEORGE FISHEL & CO. LTD., 21 CORAM STREET, LONDON, W.C.

MAKERS OF "SAFEDRIVE" NIGHT-DRIVING SPECTACLES (Prov. Patent No. 5729/51).



This picture is featured in the current Heinz Strained Foods advertising. It will appear in 28 magazines, read by over 11,000,000 women.

your best customer

Among your best customers are mothers with young babies. So it's a paying proposition to have a Baby Corner.

That is why during this month, your Heinz representative will bring display material for a Baby Corner that will help you sell *all* baby goods — among them. Strained Foods.

This is the latest development of Heinz' continuous promotion on Strained Foods: promotion that has helped to increase Strained Foods sales by 4,000% since 1939.

FHEINZ STRAINED FOODS

17 varieties: each 7d.

FOR ANTICOAGULANT THERAPY

Dindevan

(PHENYLINDANEDIONE,



Evans introduce into this country for the first time, a synthetic anticoagulant which has marked advantages over the coumarin derivatives at present in use.

PRELIMINARY clinical trials carried out in this country confirm the results with phenylindanedione reported from France, Canada and America.

DINDEVAN (phenylindanedione) is a synthetic anticoagulant which, like the coumarin derivatives, effectively lowers the prothrombin content of the blood when given orally. It thus prolongs the coagulation time of the blood.

DINDEVAN possesses advantages over dicoumarol and other coumarin derivatives in that it is excreted and inactivated sufficiently rapidly to reduce the danger of cumulative effects yet not so rapidly as to cause difficulty in maintaining a therapeutic prothrombin level.

DINDEVAN produces its therapeutic effect in 24-36 hours after the initial dose. 36 hours after stopping the drug there is a marked fall of the prothrombin time to near normal, even where the blood prothrombin has been maintained at a therapeutic level for some weeks.

PRESENTATION: Scored tablets each containing 50 mgm. of phenylindanedione.

Containers of 25 and 100 tablets

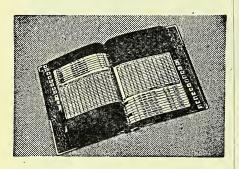
Further information on request to Medical Information Department

EVANS MEDICAL SUPPLIES LIMITED Speke · Liverpool 19

CHEMISTS!

Here is an all-round method of controlling all the activities of your business . . .

A NEW IDEA IN SIMPLIFIED ECONOMICAL ACCOUNT-KEEPING



A chemist's life is one of the hardest... so many lines to stock, so many suppliers, so many bills and such small margins of profit!

A chemist needs more book-keeping, stock-taking and clerical records than most other businesses. Yet your business won't support expensive clerical labour. So what is the answer?

First, a neat compact book that will hold hundreds of records. Second, visible records that can be seen without searching—and referred to or entered up in a flash.

What sort of records are needed?

They vary, of course, with every business. But all chemists want stock-cum-purchase records, complete with prices, discounts, dates, order numbers, etc.—because such a record is the backbone of the chemist's business. He needs to see how stocks are, what lines need re-ordering, what lines are selling well or hanging fire. And he ought to keep track of what money he pays out and what comes in.

The whole difficult problem has now been investigated and the right records created for chemists by chemists. There is a Shannoleaf record especially designed for chemists. It has a visible edge showing the commodity, price, place in shop, etc., and signalled as to whether stocks are high or low, on order, overdue for delivery, etc., and there are columns for dates of orders, order numbers, quantities, prices (wholesale and retail), discounts, cash discounts, carriage, margin of profit, when deliveries are made... and so on.

Every good chemist who wants to eliminate inefficiency should learn all about Shannoleaf records. And this is easy enough. Just jot "Shannoleaf for Chemists" on your letter-heading for full details.



FIRST IN FILING

THE SHANNON LTD., 123 Shannon Corner, New Malden, Surrey

Your customers see YESTAMIN and BUY!

Continuous, hard hitting national advertising and down to earth prices promote your sales of YESTAMIN. Fully approved by the medical profession, these tablets of pure, dried brewers' yeast are an ethical and moneymaking product you can stock and recomend with confidence. Show YESTAMIN in your shop—it sells on sight!



YESTAMIN DAIL

THE ENGLISH GRAINS CO., LTD., BURTON - ON - TREN



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'PREGNENOLONE'

Active orally in the treatment of rheumatoid arthritis

Sixty-four patients with rheumatoid arthritis were treated with pregnenolone by mouth in dosages averaging about 500 mg. daily, over periods of time ranging from two to thirty weeks.

24 patients experienced striking improvement

26 showed minor improvement

14 showed no improvement

The usual maintenance dose was 400 mg. daily.

(See 3. of Clinical Endocrinology, Dec. 1950, p. 1523)

Reduced prices

100 mg. tablets in bottles of 20... Pharmacists 64/-. Retail 96/100 mg. tablets in bottles of 100 for dispensing 310/Also solution for intramuscular injection—100 mg. pregnenoloue
in 2.5 ml. ampoules. Boxes of 3... Pharmacists 12/4. Retail 18/6

THE BRITISH DRUG HOUSES LTD. LONDON N.I

Prn1/T/1a

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FOR BULK SUPPLIES OF

Disinfectants

BLACK AND WHITE FLUIDS APPROVED FOR USE UNDER THE DISEASES of ANIMALS ACT, ETC.

& Pine Fluids

DISINFECTANTS AND DEODORANTS—ALL TYPES PACKED IN 1, 5, 10 and 40 gallon drums.

PRINCE REGENT TAR COMPANY LTD.

(Managers: BURT, BOULTON & HAYWOOD LTD)

BRETTENHAM HOUSE, LANCASTER PLACE, LONDON, W.C.2
Telephone: Temple Bar 5801 (8 lines)
Telegrams: "Burboul, Rand, London"

CARNEGIE

Manufacturers of Fine Chemicals



AESCULIN

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CARNEGIE CHEMICALS (WELWYN) LTD

WELWYN GARDEN CITY: HERTFORDSHIRE: ENGLAND

TELEGRAMS: CARNECHEM, WELWYN GARDEN TELEPHONE: WELWYN GARDEN 506 (4 lines)

A 'CARNEGIES OF WELWYN' COMPANY

The only essential sulphur-containing amino acid

Indicated in toxic hepatitis, hepatic cirrhosis, secondary anaemias, purpura, jaundice and debility.

Issued in bottles of 50 and 250 tablets each containing 0.25 G. DL-Methionine.

P.A.T.A PRICES

50 tablets 10/6d. 250 tablets 47/3d.

84/- per dozen 378/- per dozen

(Both sizes exempt Purchase Tax)

CONTINENTAL LABORATORIES LTD.

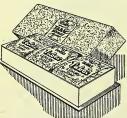
101, Great Russell Street, London, W.C.1.

Telephone: MUSeum 2042-3

Telegrams: Taxolabs, Phone, London.



Price List and samples on request. Special Bonus-terms.



From your wholesaler or direct from the Manufacturers:

DOBB'S

OF LONDON Telephone; ARChway 6543

192 SEVEN SISTERS ROAD, LONDON, N.4



Sensitive

Cuticura Shaving Soap is mildly medicated your customers will thank you for introducing them to the perfect stick for tender faces. The black and orange plastic holder for this large sized stick attracts the eye: display cartons with each half-dozen make them easy sellers at your counter.

National advertising supports your sales. Cuticura Shaving Sticks retail at 2/2 (Inc. P.T.) Trade price 15/6 doz. P.T. 5/2 doz.

DON'T FORGET OUICK SELLING CUTICURA SOAP Order to-day from NEWBERY & PHILLIPS LTD. Victoria House, Southampton Row, W.C.1, Hol 1564

Do you sell one EVERY day? DISPLAY DREXAMIN

- and tie in with forceful advertising in the national and provincial press COVERING 40,000,000 PEOPLE

DREXAMIN

ADRENALINE CREAM

Costs 30/- doz. Sells 3/9 each (Trial size)
,, 68/- doz. ,, 8/6 ,, (Full size)

Carries NO TAX

"KLEENEX DAY" is September 22nd

-the day that Kleenex advertising starts!



Plan your Kleenex* displays to tie-in with the biggest advertising campaign in the history of tissue handkerchiefs in Britain. Result: new business repeat business, faster sales every day!

Reg. Trade Mark



Why KLEENEX sells on sight

- Because Kleenex is so soft, so strong
- Because Kleenex is the only tissue that "pops up one-at-a-time"
- Because Kleenex is the only tissue that gives 75 pulls for I/-

RETAIL PRICE

		b	METAIL TRICE
-41	150	ECONOMY SIZE TISSUES (75 pulls)	1/-
	200	REGULAR SIZE TISSUES (100 pulls)	2/-

Made in England by Cellucotton Products Ltd., 33 Aylmer Parade, N.2

DISPLAY YOUR STOCKS OF BROCKHAM

HIGH FOOD

and get the
fullest benefit
from the halfpage advertisement
appearing in the

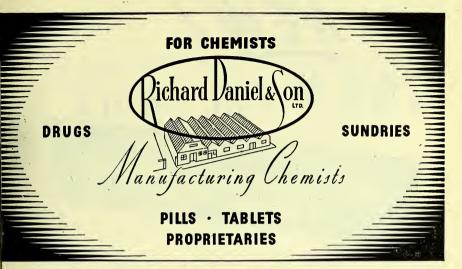
DAILY EXPRESS

on Thursday September 4th

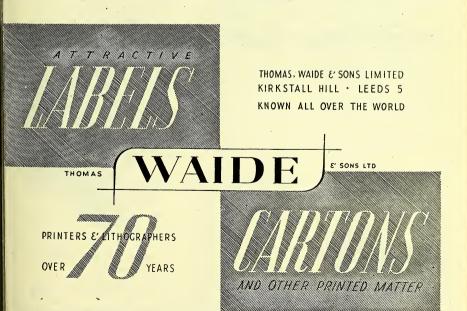
BROCKHAM HIGH PROTEIN FOOD

BROCKHAM FOOD LABORATORIES . BETCHWORTH . SURREY

royds T1/C



IEAD OFFICE & WORKS: MANSFIELD ROAD, DERBY. Tel: 48266 (4 lines)
RANCH WAREHOUSE: GROSVENDR ST., ASHTON under LYNE. Tel: 2816 (3 lines)



The NEW! GALA NAIL COLOUR

SPECIAL 'LIMITED TIME ONLY'
FREE REPLACEMENT OF OLD PACK
AT PRESENT PRICES

NEW PACK — NEW FORMULA

Elegant new triangular bottle with broad base and extra-long stem holds half as much again as the original 'tumblejack' bottle. And it contains a new, long-lasting Nail Colour, better than any other nail lacquer selling at *any* price!

BIG ADVERTISING PROMOTION

A new idea—Nail Colour and matching Lip Colour in *miniature* . . . for use in a special publicity feature in "Woman" magazine, September 13. 500,000 sets will be distributed all over the country and will create immediate demand for the regular size. To back up this promotion, press advertising will appear in the big-circulation



magazines and the Daily Mirror. This is big publicity for the new Gala Nail Colour . . . cash in on it with counter and window display and take advantage of the special offer to replace your old stock now—free and at present prices. Use the tear-out form opposite.



CUT OUT HERE

THE GALA UNIT-for-UNIT EXCHANGE OFFER CLOSES SEPT. 28 - BEFORE PRICE INCREASE

All you have to do is return your old stock, let us have details of the shades you want in exchange on this form, and agree to display the new bottle when received. Send this completed form, in the parcel with your old 'tumblejack' bottles, direct to:—

MYRAM PICKER LTD, Surbiton, Surrey

(available whether you bought direct or through a wholesaler)

We, tl	ne undersigned, retu	rn herev	with the following	ng Gala Na -only total	ail Colour. *
	(No need to mention shades returned—only totals) UNITS, REGULAR (3/9) UNITS, PEARL (6/6)				
Please se	end us in exchange	NEW N	AIL COLOUR	in the fol	lowing shades:
(Carriage Paid)					
UNITS	SHADE	UNITS	SHADE	UNITS	SHADE
,	No. I. SEA CORAL		CREAM NATURAL		SILVER PEARL
	No. 10. RED BUNTING		CLEAR NATURAL		PINK PEARL
	No. II. LANTERN RED		CASUAL		
	No. 12. HEAVENLY PINK	11.	DEMURE		
	No. 3. CYCLAMEN		,		
	No. 5. YOUNG PINK				shades required.
* If present stock was obtained through a wholesaler please give name here: NOTE: Please order any additional quantities separately in the usual way					
Name					
Address					
Signature					
Note the price increase of Nail Colour to 5/- from September 28. Pearl shades remain at 6/6					

They Come

Again and Again

and Again.



It's the regular lines which are so valuable to the pharmacy . . . good, reliable lines; nationally advertised lines; lines which bring customers to your counter all the time.

Silcot is just such a line, popular with vast numbers of women because of its unsurpassed comfort, and a popular selling line with more chemists than ever.

Silcot will bring you constant repeat business. It is a quality cotton-wool towel particularly suitable for the pharmacy, and known to millions of women through national advertising . . . yes, the kind of towel which produces the regular sales you want.



Cotton-Wool Sanitary Towels

In five sizes, from 2/3 per packet retail

VENSILLA

NOW 2/-

For those customers who want a towel for easy disposal you should stock Vensilla, a good quality soluble towel. Retail price now 2/- per packet. Made with a thick pad of pure cellulose, Vensilla has soft knitted covers and loops.

SILPAK

the cotton-wool towel with plastic shield

Size | 1/11 Size 2 2/3

Silpak is now available in two sizes, and therefore a suitable towel at a low price for a larger number of women. The cotton-wool pad ensures the fullest comfort, and the plastic shield with special security loop the greatest safety.

MACDONALD & SON LTD., HOPE MILLS, POLLARD STREET, MANCHESTER



Out of every five customers . . .



three should be ... your regular Steradent customers

Dentures are worn by three adults in every five (according to latest national statistics).

So three-fifths of the people who come into your shop every day are prospective customers for a denture-cleaner.

You can recommend Steradent, the "oxygen denture cleaner" with the confidence that it will bring you the steady profit of regular, repeat sales.

For "oxygen-clean" dentures keep their fresh, "new look" sparkle: bring customers back, regularly, for more Steradent

Steradent

Specially made to "oxygen-clean" dentures

A RECKITT AND COLMAN PRODUCT

VENUS still leads with the finest value in

HANDKERCHIEF TISSUES

★ These attractive Pastel Shade Tissues now cost no more than ordinary white tissues



★ The following prices become operative from SEPTEMBER 1st.

> ★ The well known multi - colour Dispenser Box (illustrated above) will contain 200 Tissues. Retail Price 2/- per box

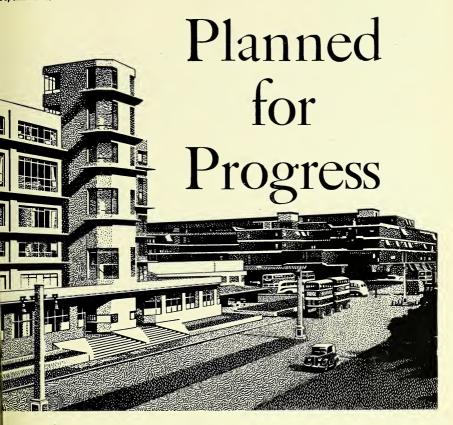


POPULAR PACKS IN DISPENSER BOXES CONTAINING WHITE OR PEACH TISSUES

> Retail Prices 150 Tissues 1/6 100 Tissues I/-

Venus Paper Handkerchiefs in attractively designed cellophane envelopes now retail at 6d. per packet

THE HY-G-NIC PAPER HANDKERCHIEF CO. LT GRANVILLE PAPER MILLS, BRETTENHAM RD., LONDON, N TOTTENHAM 4648/9



HE GREAT BOOTS GROUP of factories at Beeston, Nottingham, sknown all over the world as a notable example of progressive nethods in industry. In the most widely diverse countries, Boots ave gained a consistently high reputation for Fine Chemicals, Medical Products, Pharmaceutical Preparations, Veterinary and Morticultural Specialities, and Toilet Preparations.



OOTS PURE DRUG CO LTD NOTTINGHAM ENGLAND

Two great

September 6, 1952



Nationa

The name behind the chemist for over a century-and-a-h



Advertising

The name behind the chemist for over a century-and-a-h



Campaign

The name behind the chemist for over a century-and-a-h



for chemist

The new National Advertising Campaigns for MEGGEZONES and MEGGESON BISMUTH DYSPEPSIA TABLETS will be the biggest and most far-reaching in the history of the House of Meggeson.

PRESS ADVERTISEMENTS

(including half-page and quarter-page spaces) will appear in the largest-circulation national and provincial newspapers and periodicals.

FILMS AND COLOUR FILMLETS

will be seen by audiences in cinemas in all the principal towns throughout Britain.

POSTERS AND OUTDOOR SIGNS

will keep the names constantly before the public.

DISPLAY MATERIAL

will focus public demand at the point of sale.

—ALL WILL BRING MORE CUSTOMERS FOR MEGGESON PRODUCTS TO CHEMISTS ONLY

A Showcard has been specially prepared for use in window displays during the C.F. Display Fortnight, Oct. 20th—Nov. 1st. Ask your Meggeson representative for your copy and tie-up with Meggeson Advertising.





'LOREXANE'

INSECT SPRAY

in the popular aerosol pack

'Lorexane' Insect Spray contains gamma benzene hexachloride, the I.C.I. discovery now recognized throughout the world as the most powerful and persistent of all the modern chemical insecticides. It is non-poisonous and non-inflammable, and especially suitable for use in the house, and in farm buildings, dairies, etc. Used according to the instructions, 'Lorexane' is exceptionally economical and effective.

★ Spray fitting aluminium containers of 6 ozs. and 12 ozs. Retail prices 7/6d. and 12/6d. each.



IMPERIAL CHEMICAL (PHARMACEUTICALS) LIMITED

A subsidiary company of Imperial Chemical Industries Limited WILMSLOW, MANCHESTER

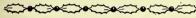
Now available

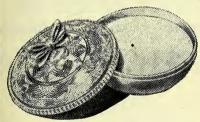
These special Tokalon Christmas Lines at Tokalon's own popular prices

1952 BEAUTY BOX - 3/6 (inc. P.T.)

An attractive slide pack containing a double-velour powder puff, a box of the new finer Poudre Tokalon and Tokalon's small size lipstick in its new plastic case. Available in the following Powder/Lipstick assortments: Rachel/Holly Berry; Natural/Clover; Peach/Royal Red; Rose Natural/Cherry.

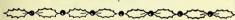






FILLED POWDER BOWL - 3/6 (inc. P.T.)

This delightful shell-pink powder bowl—an ornament in itself—is filled with the popular new Poudre Tokalon. All Tokalon powder shades available.



THREE - CREAM COFFRET - 4/- (inc. P.T.)

A small size Tokalon Rose Skinfood, Vanishing Cream and Cleansing Cream in an attractive pack. Also available containing 3 Vanishing Cream or 2 Vanishing Cream and 1 Rose Skinfood.



These Christmas lines will be supported by press advertising



TOKALON LIMITED, 24 GILBERT STREET, MAYFAIR, LONDON, W.I.
Telephone: REGent 5321 (6 lines)

Public Demand For VIT-ORANGE

increases weekly

The Glucose Tablet that contains both VITAMINS C & D



Delightfully refreshing

Recommend 3 or 4 a day as an aid to perfect health

Cost 9/- doz. Retail 1/3 TAX FREE

Today's most popular pastille



Very attractively packed
10/- doz. Tax Free 4/6 lb.
Name and Address on orders of 6 doz.

Write for Samples and Price List of "SURE SHIELD" PRODUCTS

THOS. GUEST & Co. LTD. CARRUTHERS ST. MANCHESTER 4



ELASTO advertising is widespread and consistent. A steady demand for this product is being created at your very door. Are you taking full advantage of this opportunity for new business created in your area by this vigorous campaign? 'Elasto' salesaids displayed in your window or on your counter will convert the 'prospect' we have created into a customer for you. And remember there is ONE SHILLING and SEVENPENCE PROFIT on each sale!

Show material free on request

NEW ERA LABORATORIES LTD.

CECIL HOUSE · HOLBORN VIADUCT · LONDON

EXTRACTS and ESSENCES

Chemists, for nearly 100 years, have sold Mason's Extract of Herbs (the original), for the home-brewing of wholesome, sparkling and refreshing non-alcoholic botanic or herbeer. This has been to the mutual advantage of themselves and their customers.

Equally worth-while, are Mason's Flavouring Essences, savoury and sweet, available in a wide range.

Immediate and future—repeated!—profits are assured. Details will be gladly sent on your request.



NEWBALL & MASON LIMITED NOTTINGHAM AN OLD FAVOURITE IN A NEW PACK

NIGROIDS

IN A HANDY
PLASTIC BOX
WITH SLIDING LID



NOW
IS NOT TOO SOON
TO ORDER FOR
THE AUTUMN AND WINTER

RETAIL PRICE

AVAILABLE SEPT. 15

FERRIS & CO. LTD.

BRISTOL 2

SUPPLIERS OF CHEMICALS and GALENICALS FOR NEARLY 200 YEARS

Cameras for all seasons

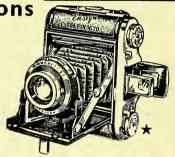


PURMA PLUS £12.12.0



FINETTA IVD f 7.7 £10.18.3 f 4 £15.14.0 f 2.8 £17.19.5 FINETTA SUPER

FINETTA SUPER f 4 £19.17.10 f 2.8 ,£22.11.6



ENSIGN SELFIX 16/20 II *

RANGER II £10.18.8



JONATHAN FALLOWFIELD LTD

74 NEWMAN ST. LONDON W.I. MUSEUM 7401-2-3



MERCOLIZED WAX—for nightly skin care
MERCOLIZED FOUNDATION CREAM
MERCOLIZED ASTRINGENT LOTION

STALLAX

- the family shampoo

SIPOLITE

- a powder depilatory

PILENTA SOAP - for the complexion

Supplies obtainable from our distributors:

POTTER & MOORE LIMITED

Lavender House, Seymour Road, Leyton, London, E.10

a palatable liquid preparation—
containing the principal vitamins
in an orange base

A LIQUID PREPARATION intended for use in conditions in which the need for vitamins is above the average. The form in which it is presented makes it ideally suitable for children; also for adults in febrile illnesses, or in infectious or other conditions of the pharynx where there is difficulty in swallowing.

FORMULA One teaspoonful (3.5 cc) contains:

VITAMIN A 2,500 i.u.
VITAMIN B₁ 0.5 mg.

VITAMIN C 10 mg. VITAMIN D 375 i.u.

PRICES

Retail
6 FLUID OUNCE: 3/9 each
40 FLUID OUNCE: 24/- each

Chemists
30/- doz.
16/- each

Wholesale
26/3 doz.
14/- each

Vitavel Syrup

VITAMINS LIMITED, UPPER MALL, LONDON, W.6



The wonderful FEEDRITE BABY FEEDER is a "best" seller. It is most attractive in design, and is not a Seasonal line.

The FEEDRITE "Crowner" showcard attracts the attention of mothers, and reminds them of other needs for baby.

The FEEDRITE Anti-Colic Teat is a boon and blessing to mothers, because the special valve on the side of the teat ensures an even flow of milk, and prevents the teat from going flat whilst baby is sucking.

BABY FEEDER

ONLY SUPPLIED THROUGH WHOLESALERS

FEEDRITE BABY FEEDER (Complete Feedrite Bottle and Anti-Colic Teat)	with 5/-
FEEDRITE Spare Bottles	1/3
FEEDRITE Anti-Colic Teats	$7\frac{1}{2}$ d.
FEEDRITE Spare Thermal Heat Retaining Sets	
FEEDRITE Rubber Bottle Stoppers	$7\frac{1}{2}$ d.

Attractive advertising material and leaflets can be obtained on request from:—

The teat is supplied in two patterns—Cherry or Flat. The FEEDRITE WONDER BABY FEEDER retails complete for 5/-. Mothers insist on FEEDRITE. Spare bottles, Thermal Heat Retaining Pad Sets, and Rubber Bottle Stoppers, see you have stocks ready for them.

Inicanticultic teat

WILL NOT FLATTEN

FEEDRITE LIMITED

300 KINGSTON ROAD, MERTON PARK, SURREY

11,000,000 WOMEN WILL SEE THIS ADVERTISING



Regular advertising in all the women's weekly and monthly publications is building up a big demand for these Adelaide Grey Proprietaries. Order a stock today.

WAX-A-WAY & COOLWAX DEPILATORIES

'Laleek' Wax-a-Way recommended for facial treatment is definitely the most satisfactory Wax Depilatory marketed today. It retails at 8/7 including Tax.

'Laleek' Coolwax is for use on the arms and legs. Economical to use and most effective. Retails at 5/9 including Tax.

LONGLASH & EYE COSMETIC

Adelaide Grey's 'Laleek' LONGLASH, famous for years as the leading line in the field, retails at 2/1. 'Laleek' Eye Cosmetic attractively packed in its new round container complete with brush, retail 4/6, is rapidly growing in popularity.



BEAUTY PREPARATIONS

ADELAIDE GREY, 30 OLD BOND ST., LONDON, W.I

RM-GLOW First ag

with FINGER-TIP BEDSIDE CONTROL

THE ONLY BLANKET CONTROL WHICH IS INFINITELY VARIABLE, SELF-COMPENSATING, AND SENSITIVE TO BED AND BODY TEMPERATURES.

* The VIGILUX (Regd.)

has all the luxury features of the Warm-Glow single-heat Blanket-plus finger-tip bedside temperature control, and many other well engineered refinements, such as 2-pole switching, dial illumination, etc. THIS IS THE BLANKET YOU'VE BEEN WAITING FOR! The full size woollen blanket is a part of the bedclothes and is not removed before retiring.

Its low loading design and waterproof element gives it a higher safety factor than any other and professional gardeners. The price is less blanket on the market.

* WARM-GLOW

were first to introduce natural dissipation control in 1934 and full size fleecy wool blankets in attractive pastel colours. In 1948 we were again first with the waterproof element. size and specification, Warm-Glow value-for-money is head and shoulders above al competitors.

* WARM-GLOW SOIL HEATERS

than half any competitor.

CREATE GOODWILL WITH YOUR CUSTOMERS BY STOCKING WARM-GLOW. ASK YOUR WHOLESALER FOR FURTHER DETAILS, OR WRITE TO DEPT. CI

O TD. Telephone · LEIGH-ON-SEA

pure soap no perfume no colouring no fillings that's



"SIMPLE SOAP

SALES ARE RAPIDLY EXPANDING.

Both the Medical and Nursing Professions have responded in a manner far exceeding our own expectations to our advertising and direct mailings.

Be prepared by holding a stock, and take your share of this rapidly expanding line.

Advertising is regularly appearing in a wide range of Medical and Nursing Journals.

AMPLE SUPPLIES, PROMPT DELIVERIES

Good profits—reasonably priced. 6/- per dozen, plus 2/- P.T. Retail price IId., showing a profit of 3d. per tablet.

"Simple" Soap makes no claims to medication. Its purity is its only claim to distinction.

Prescribed by Doctors and Dermatologists all over the country, and used in many Hospitals.

AVAILABLE THROUGH WHOLESALERS

OR DIRECT FROM

THE ALBION SOAP CO. LTD.

30/2 THAMES STREET, HAMPTON, MIDDLESEX

MAKERS OF THE WORLD FAMOUS ALBION MILK & SULPHUR TOILET SOAP

Colourful Displays for your

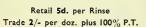


Colowr -Lovely Sales

Retail 9d. per pack
Trade 3/8 per doz. plus 100% P.T.

THESE handy Camilatone dispensers give a commanding counter display to the eight lovely shades of TWIN PACK (Shampoo and Colour Rinse) and TONRINZ Colour Rinses. Get these new 'self service' dispensers on show without delay. Backed by our current advertising for Colour-Lovely Hair, they are not mere reminders . . . they actually create sales. And make sure your stocks are plentiful. You'll need them for refill purposes!

This eye-catching display outer is supplied filled with every order for four dozen or more TWIN PACK in assorted shades.



This most attractive Tonrinz dispenser
—filled from your stock—is available from
our representative or by writing direct to:—



CAMILATONE

CAMILATONE LTD., EDGWARE ROAD, WELSH HARP, LONDON, N.W.9



Chemists in Great
Britain and Ireland are now looking ahead
and making plans to ensure adequate
business during the next few months—a
good rule to follow, because this is always
a highly important period in the year's
cash volume.

Best results can only follow careful planning, and under present conditions in retail pharmacies, with our experience during the earlier months of 1952 of the many ups and downs in counter business, price changes and increasing

competition, it becomes more necessary than ever for the retail Chemist to get down to the hard facts of the business situation. Expenses are certain to continue on a higher scale and we must examine the weekly totals with extra vigilance.

Rexall headquarters offer full support and will welcome the opportunity of making practical suggestions.

Enquiries from districts where there is no existing Rexall Agency will also receive every attention.





CHEMISTS

Please write to:

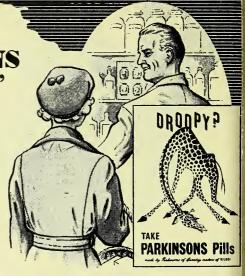
REXALL DRUG COMPANY LIMITED

KIRKEWHITE STREET, NOTTINGHAM



Do make quite certain that you can supply what the customer asks for. And people are always asking for Parkinsons Pills—just as they ask for Kilkof during the cough season.

The new "Droopy" National advertising campaign will give fresh impetus to their demand. Give them Parkinsons, satisfy them, and profit from repeat sales.



PARKINSONS LTD. MANUFACTURING CHEMISTS, BURNLEY

Sunderland Education Committee Sunderland Technical College

Principal: D. A. WRANGHAM, M.Sc., Sen.Wh.Sch., D.I.C., M.I.Mech.E., A.C.G.I.

DEPARTMENT OF PHARMACY

Head of Department:—F. H. OLIVER, B.Sc., B.Pharm., Ph.C.

Full-time Courses of study are held for :—
General Certificate of Education.

Intermediate Examination of the Pharmaceutical Society.

Intermediate B.Pharm. Examination (London).
Qualifying Examination of The Pharmaceutical

Final Bachelor of Pharmacy Examination of the University of London.

Session commences

1st October, 1952

Registration

Intermediate Courses, 24th September, 1952, 2.30-3.30 p.m. Final Courses, 10-11 a.m.

Prospective students should make immediate application for prospectus and forms to the Registrar, The Technical College, Sunderland, Co. Durham. W. THOMPSON,

Director of Education

SacQuit THE UNIQUE PERFUMED LACQUER REMOVER

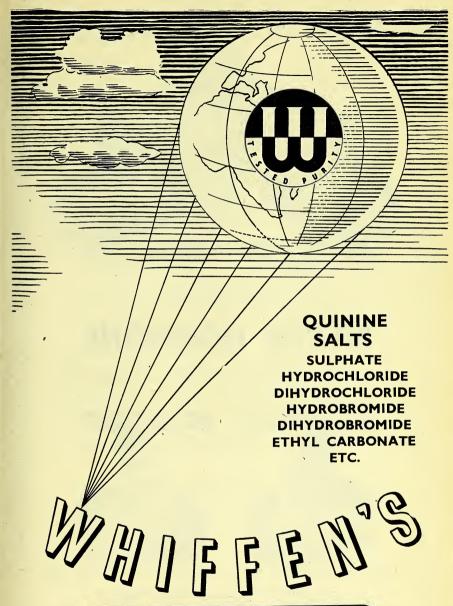
NON-SMEARING — NON-DRYING Order from YOUR usual Wholesaler or direct from ANNE SCOTT PREPARATIONS ISB ALCESTER ROAD, BIRMINGHAM, 13

' VERLOG' (Trade Mark)
SURGICAL ELASTIC HOSIERY
Belts, Trusses, Suspensory Bandages, etc.
ATHLETIC SUPPORTS

Knee Caps, Anklets, Jockstraps
THOS. GLOVER & SON, LTD., CARLTON, NOTTINGHAM
Tel.: 58227 (2 lines). 'Grams: Verlog, Nottingham

By Else Herzberg and Mary Nicholson. A "textbook of salesmanship" with an original approach. It lays emphasis not merely on direct selling, but on service and the necessity for sales assistants to show a genuine interest in their customer's needs. Illustrated 15/- net. Staff





WHIFFEN & SONS LTD., FULHAM, LONDON, S.W.6
Telephone: RENown 3416. Telegrams: Whiffen, Walgreen, London

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Appropriate

MIXED HORMONE

formula for each type of case



ROUSSEL LABORATORIES LTD 847, Harrow Road, London, N.W.10. LADbroke 3608



HIGHLY CONCENTRATED

(70% and over Sodium Chlorophyllin content)

Placing our research facilities and experience of Chlorophyll manufacture freely at users' disposal, we welcome inquiries as to the best grade of Chlorophyll for any particular application.

TABLETS · DENTIFRICES · MOUTH WASHES DEODORANTS · BREATH SWEETENERS · DRESSINGS SOAP COLOURING . FOOD COLOURING . & CONFECTIONERY COLOURING etc. etc.

> WATER-SOLUBLE CHLOROPHYLLS OIL-SOLUBLE CHLOROPHYLLS MEDICINAL CHLOROPHYLLS

Send us your enquiries!

THE ALLEN CHLOROPHYLL COMPANY LTD. WHARF ROAD, LONDON, N.I

Telephone: CLErkenwell 1000

Telegrams: Alclor, Nordo, London

Cables: Alclor, London



Ransom's extract of Hyoseyamus is produced from plants grown on the Company's own farms. It owes its high quality to the extreme care of its manufacture.



The finest vegetable drugs and galenicals come only from the finest plants. Cultivation of medicinal plants is an art that comes only from long experience. It is because Ransoms of Hitchin have specialised in drug growing for over a century that the name Ransom has become synonymous with unsurpassed quality in drugs and galenicals in all parts of the world

Actual growers of belladonna, henbane, foxglove, chamomile peppermint and lavender

Established 1846

WILLIAM RANSOM & SON LTD.

Hitchin Hertfordshire England

Salesman sighted off-shore STOP

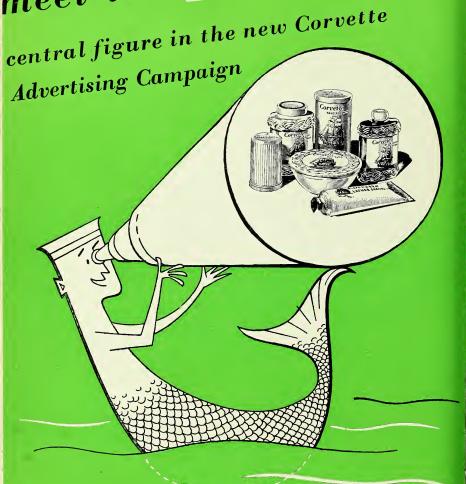
Corvette takes Salesman aboard STOP

Big new Corvette campaign STOP

OVE

Corvette popularity
Keeps growing NON-STOP

meet the Salesman



ou'll like the Salesman. So will your customers! He's the new Corvette shipmate

— a colourful, bright-an'-breezy character who is featured strongly

in Corvette's new national advertising campaign which includes an extended list of newspapers and magazines and specially designed dealer aids.

What an attractive figure the Salesman makes — and what scope for eye-taking display! Give him a good showing — he's going to be a good salesman for you!

Corvette Goya Men's Division

Most chemists will want to find room for this gay, novel display unit! The "boxer" (a pastilles-and-springwire figure) sways and dances at the slightest vibration or touch. The whole colourful boxing ring scene aptly dramatises a new sales-campaign slogan for

POTTE CATARRH **PASTILLES**

This "Fighting Formula" slogan puts a powerful punch into big-space National press advertising now appearing for Potter's Catarrh Pastilles. Point-ofsale display of this eye-catcher should prove an easy sales winner, 1 doz. tins of Potter's Catarrh Pastilles can be put in a special holder attached to the back of this unit.

ALSO READY: Striking display box (also with "boxer" illustration) holding 1 doz. tins.

Retail Price 1/9 a tin.

Trade Price 11/-a doz

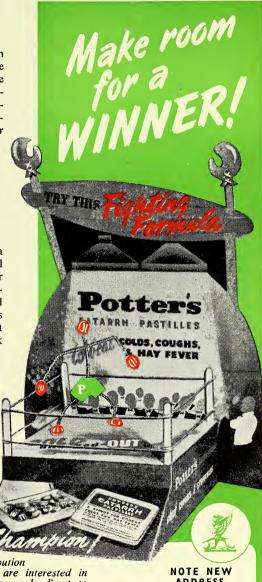
ORDERS THROUGH WHOLESALERS ONLY

> N.B.—There is no general distribution of this costly display. If you are interested in having one for your shop, please apply direct to

ADDRESS

LARKE POTTER

RIVER ROAD · BARKING · ESSEX · Telephone : RIPpleway 3041



UNEQUALLED ADVERTISING PRESSURE PROMOTES NEW miracle-green Toothpaste



Striking half-pages in the Daily Express!

Britain's best selling-medium — 4,000,000 circulation!

Equivalent pressure in all leading newspapers and magazines!

HUNDREDS OF POSTERS! NOVEL DISPLAY MATERIAL! Now is the time to display this new chlorophyll toothpaste and ...

Watch the rising sales of

Mentaso

THE CHLOROPHYLL
TOOTHPASTE

Made by the makers of Pepsodent

MSTC6-1062-100

Within a matter of SECONDS

PRIVINE

produces
NASAL DECONGESTION
lasting SEVERAL HOURS

The new POCKET NEBULISER ensures

Effectiveness · Economy

Ease of Administration

Please apply for a sample nebuliser

Nebuliser 1: 2000—1: 1000. Also in bottles of $\frac{1}{2}$, 4 and 20 fl. ozs.

COBA

'Privine' is a registered trade mark Reg. user

CIBA LABORATORIES LIMITED

HORSHAM · SUSSEX

Telephone: Horsham 1234

Telegrams: Cibalabs, Horsham

10/51

ASPRO LIMITED

The Seventeenth Annual General Meeting of Aspro Limited was held on September 2nd, at 16 Berkeley Street, London, W.1. In the absence of the Chairman, Sir Ian Fraser, C.B.E., M.P., presided. The following is an extract from the circulated Statement by the Chairman, Mr. Maurice A. Nicholas:—

TRADING RESULTS FOR THE YEAR

The Trading Profit of your Group after providing for Directors' Remuneration and Depreciation amounted to £585,321 compared with £793,794 for the previous year. In the Parent Company's accounts the amount available for appropriation is £173,160 to which must be added the balance of profits brought forward from last year making a total amount of £197,472. After deducting £14,438 for the Preference Dividend and a further £39,375 for the Interim Ordinary Dividend, already paid, your Directors propose (a) to allocate £50,000 to the General Reserve of Aspro Limited and (b) to recommend a final dividend of 20 per cent., less Income Tax, on the Ordinary Stock, the same rate as for last year. The balance to be carried forward on Profit and Loss Account will therefore be £41,159 as against £24,312 brought in.

ACQUISITION OF MINORITY INTERESTS

The reduction in the Group cash position is mainly accounted for by the purchase on behalf of your Parent Company of the minority interests in our Subsidiary Companies in Luxembourg and South Africa at a cost of £300,000. Your Directors in their Report have referred to my negotiations resulting in the acquisition of these minority interests in our Continental Holding Company (which has since been dissolved) and in Nicholas (South Africa) (Pty.) Limited. This transaction has led to a simplification and consolidation of the Group's financial structure and has facilitated the steps being taken by the Boards of our overseas Companies to improve their financial and administrative position.

TRADING CONDITIONS

Supplies of acid, paper and board have been particularly difficult to obtain, though your Directors anticipated this difficulty and deemed it prudent to carry out a certain amount of stockpiling, which is reflected in the Accounts presented herewith. The raw materials position is now becoming easier and the whole question of stocks is being kept under continuous review by your Board.

While the Trading Profit for the year at £585,321 is not as high as for the previous year it must be remembered that reflected in the previous year's accounts were the additional sales made as a result of the serious influenza epidemic of January and

February, 1951.

EXTENSION OF OVERSEAS INTERESTS

During the year we formed three Subsidiary Companies in Holland, Pakistan and Northern Ireland. In both Holland and Northern Ireland these Companies will take over the promotion of the Company's sales from agents who previously handled our business there. Sales promotion in our Export Markets has continued throughout the year, while on the development front we hope to commence operations in two other large overseas countries during the latter part of 1952. Though the surveys of these two markets are encouraging, it is too early yet to make predictions as to their full potentialities.

BURDEN OF EXCESSIVE TAXATION

In common with all British industry we are suffering from the ever-increasing burden of taxation. The present tax liability for both corporations and for individuals is completely unrealistic in that the essential life-blood of industry is being drained away. If this country is to gain from the benefits of an economy based on free enterprise, and it certainly can, then some tax reductions and concessions must be forthcoming. That is the only way to create real incentive for greater productivity and increased individual effort. Hold-ups, legal discussions and the like in interpreting and applying to your Group certain sections of the Finance Act are just another unnecessary complication of business management today. All these matters constitute a brake on fundamental activities and development, particularly in overseas territories. Let the Government get off the back of industry and allow us some freedom of movement. Then watch the productivity of the country rise,

Introducing

A SPRING ACTION TWEEZER THAT REALLY DOES GRIP!



ELIMINATES TENSION AND HOLDS THE MINUTEST ARTICLE WITH AN UNFAILING GRIP

Wholesale and Export Enquiries to:-

ARCFIELD OPTICAL MANUFACTURING CO. LTD. (Light Engineering Section)

53 TOTTENHAM COURT ROAD, LONDON, W.I

BRIT, PAT, 648873

Women everywhere will welcome this new improved patented tweezer. British made from steel with heavy Chrome finish. Packed in dozens for counter display. ORDER FROM YOUR WHOLESALER.

Trade Price 18/- doz. (Plus P.T.)

TELEPHONE LANGHAM 6339

erard Toilet Soaps and White Windsor Made in NOTTINGHAM since 1876 INO Toilet Soap Gerard Bath Soap Floral Cream Toilet Soaps White Windsor Tablets Talcum Powder Brilliantine GERARD BROS. LTD. THE SOAP WORKS · NOTTINGHAM

TWO NEW DESIGNS



CHILDREN'S HOT WATER BOTTLES

Young customers will love these cuddly bottles. And mothers will gladly put their trust in Dunlop value and quality. Children's bottles are also available in Clown, Bunny, Doggy, Teddy, Kitty and Red Riding Hood designs.



Dunlop Rubber Co. Ltd., (General Rubber Goods Division), Cambridge Street, Manchester 1. 2G/SG2

The House of

Hayuood 1830

offers:- Daily Van Delivery Service

• ETHICALS • PATENTS • SUNDRIES

· DRESSINGS · Etc ·

and National Health Service Appliances

TRUSSES, ELASTIC HOSIERY, SURGICAL BELTS All made in our own Factory to your own measurements and dispatched by return

TRADE ONLY

Registered Office and Works

WARSER GATE Phone: 46691 (3 lines) and 45164

· NOTTINGHAM

Grams: Appliance Nottm.

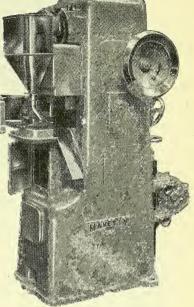
Study the advantages

of the latest



rising from recent research in the Manesty Works important improvements have recently been made in the range of Manesty Tableting Machines. An entirely new machine — the Manesty 2C — has been introduced, former model (the D3) has been materially trengthened and is now known as the D3A Rotary

Tablet Machine. Both models are of particular interest because of their performance and ease in operation.



The new MANESTY 2C Pelleting Press.

SPECIAL FEATURES

D3A—(16-punch)
Fully guarded; for

any reasonably shaped tablet; self-contained constant or variable speed drive; overload release; can be fitted with punch anti-turning device; strengthened upper roll support; larger diameter pressure rod. Output 300-350 per minute; tablets up to 1" diameter. 2C — (primarily single punch). Fully guarded; rigid design; self-contained variable speed drive; fitted with overload release. Output 19-56 per minute; tablets up to $1\frac{1}{2}$ " diameter.

Write today for full details of these new MANESTY machines. MANESTY Machines are now used in over 60 countries.

Have you this book? "Tablet Making" — An authoritative volume by A. Little and K. A. Mitchell. 121 pp., 41 illustrations, 25 formulæ. Cloth bound 15s. net post free.

The MANESTY D3A Rotary Tablet Machine.

MANESTY MACHINES LIMITED

DEPT. 5 SPEKE LIVERPOOL, 19
Telephone: Hunts Cross 1972 Telegrams: Manesty, Liverpool 19



That's the day National Advertising starts for the Richard Hudnut Children's Home Perm, advertising that definitely sells—we know because we've proved it in an extensive test campaign. It's educational...

tells mothers all they want to know about this new product. To spearhead this campaign, we have chosen the "DAILY EXPRESS," "SUNDAY EXPRESS," "PICTURE POST"—a total of 19,690,130 advertisements.



To the few 'I-can't-make-up-my-mind' customers that may come your way, say this:

There's nothing new in waving children's hair. The children's home perm is just a better, more lasting way of waving than curling rags or papers.

The Richard Hudnut Children's Home Perm is completely different from the adults; it's a new formula . . . safer . . . more gentle . . . created specially for children's finer, less elastic hair.

This Home Perm has been used successfully on over 1,000,000 children in America and not a single case of irritation, allergy or damage has been reported.

Richard Hudnut CHILDREN'S HOME PERM



'KEMADRIN' offers a greater measure of symptomatic relief to the victims of Parkinson's disease. A new synthetic compound, it produces fewer side effects than do the traditional belladonna and stramonium alkaloids.

Though not significantly affecting tremor, 'Kemadrin' produces a marked reduction of the disabling 'cog wheel' rigidity. Muscular co-ordination is improved, and the greater activity which patients are free to enjoy is reflected in improved emotional tone and a more cheerful outlook.

'Kemadrin' is issued as compressed products of 5 mgm. (scored for division) in bottles of 25, 100 and 500.

'KEMADRIN'

di - I-cycloHEXYL - I - PHENYL - 3 - PYRROLIDINOPROPAN - I - OL HYDROCHLORIDE

IN PARALYSIS AGITANS



BURROUGHS WELLCOME & CO. (The Wellcome Foundation Ltd.) LONDON



Chorionic Gonadotrophin PREGNYL
Deoxycortone Acetate DOCA
Ethinylæstradiol LYNORAL
Ethisterone PROGESTORAL
Methyltestosterone NEO-HOMBREOL M
Œstradiol Monobenzoate DIMENFORMON
Estradiol Dipropionate . DIMENFORMON DIPROPIONATE
Œstrone MENFORMON
Progesterone PROGESTIN
Serum Gonadotrophin GESTYL
Testosterone Propionate NEO-HOMBREOL
Thyroid THYRANON

Other Hormones

Adrenocorticotrophic Hormone ACTH*

Anterior Pituitary Thyrotrophin . . . AMBINON A & B

Methylandrostenediol STENEDIOL

Œstradiol B.P.C. NEO-HOMBREOL

Mixed Hormone Preparations MENSTROGEN & MIXOGEN

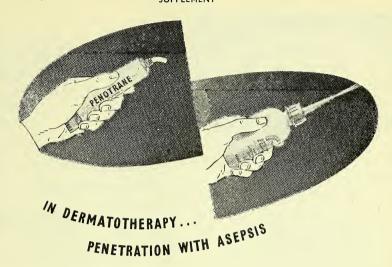
*All U.K. distribution at present controlled by Ministry of Health.

Price List on request.

ORGANON LABORATORIES LTD

BRETTENHAM HOUSE, LANCASTER PLACE, LONDON, W.C.:
Telephones: TEMple Bar 6785/6/7, 0251/2. Telegrams: Menformon, Rand, Londo

hormones organon



Where treatment at depth is desired in addition to superficial asepsis, the powerful bactericidal compound PENOTRANE is recognised as an ideal local medicament in many skin infections. Highly active against Gram-positive and Gram-negative organisms and a valuable fungicide, it possesses unique powers of penetration through the living epidermis. PENOTRANE also has the dual advantage of retaining its activity in the presence of blood, pus and serum and of promoting healing.

PENOTRANE JELLY

Prepared in a soothing, lubricant medium for ease of application, Penotrane Jelly (a 0.1% concentration) affords the full therapeutic effects of the compound. Colourless, non-staining and pleasant in use, it is indicated in many skin diseases, especially those of fungal origin, including ringworm. An excellent first-aid measure in minor injuries, it is also a reliable antiseptic lubricant in obstetrics.

Detailed literature available on request

In 1 oz. tubes

PENOTRANE DUSTING POWDER

Containing a 0.4% concentration of the compound adsorbed on a bland base, Penotrane Dusting Powder affords maximum effective contact to the skin areas treated. It arrests secretions, absorbs excessive exudation, speeds the healing of wounds and is of particular value in the treatment of weeping eczema, otitis externa, irritant skin conditions and athlete's foot.

In Polythene Containers and Cartons of 3 x 1 Gm. Tubes.

penotrane

PHENYLMERCURIC DINAPHTHYLMETHANE DISULPHONATE



WARD, BLENKINSOP & CO. LTD.

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(a) F. VERDEIL, Compt. rend, 1851. 33, 689. (b) E. BURGI, Das Chlorophyll als Pharmakon. Leipzig 1932.

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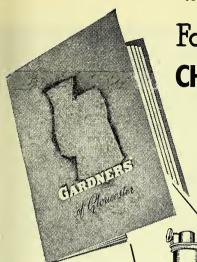


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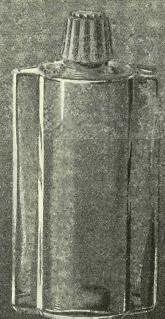
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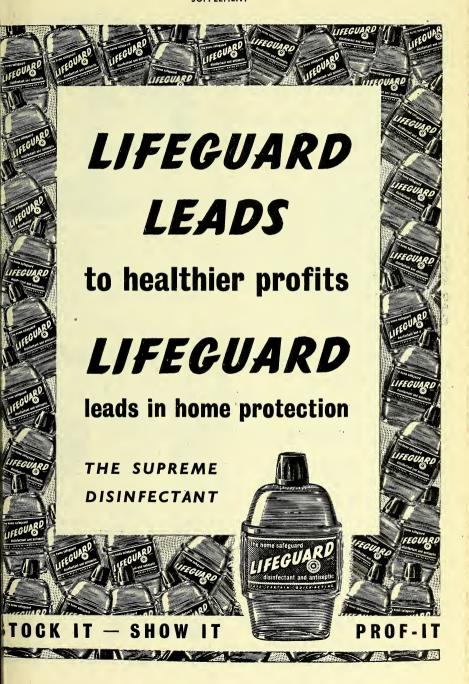
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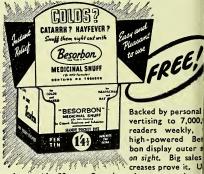
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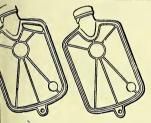
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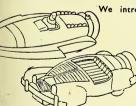
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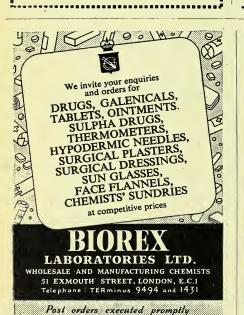


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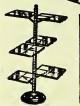


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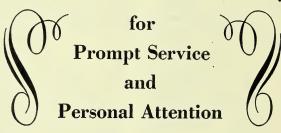
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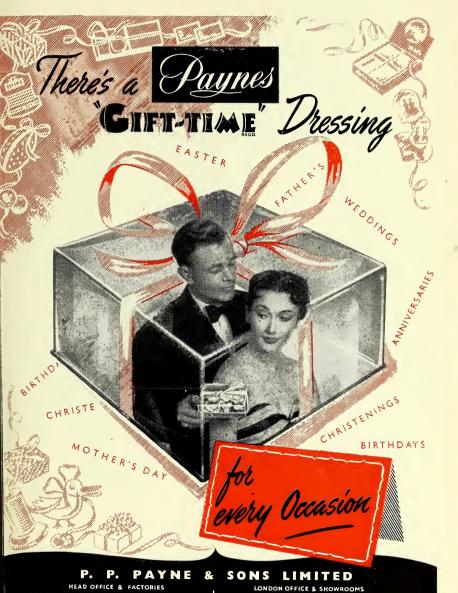
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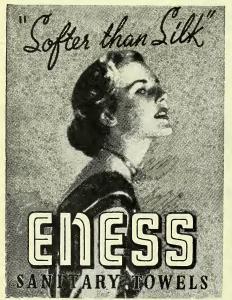
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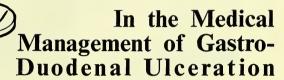
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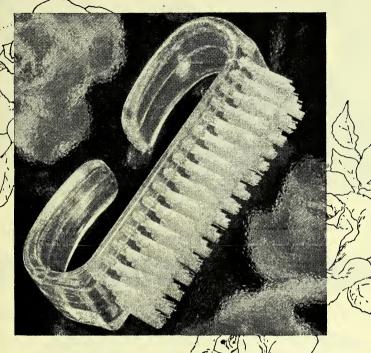


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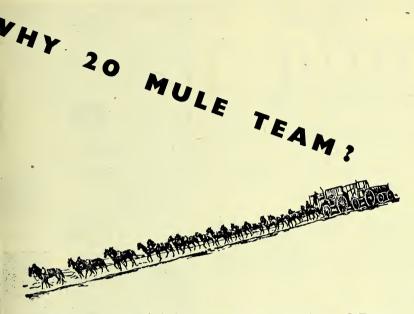
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NEWS OF THE WEEK

National Insurance.—Employers and and non-employed persons holding National Insurance cards are reded to change them for yellow ones by tember 6.

Cheaper Aluminium for Packing. the reductions, effective from September and amounting to twopence per lb. or rly 8 per cent, for bulk quantities, are ounced by the British Aluminium Co., for thin-gauge sheet and coiled strip minium for box-making and capping poses.

ewer Public Companies. — Figures n in the Companies General Annual ort published by the Board of Trade August 28 show that at the end of I there were 11,778 public companies a share capital against 11,920 at end of 1950. The number of private panies, however, continued to increase. se with a share capital totalled 244,166

 $(\pounds_{2,2}67 \text{ millions})$ in 1951 against 235,307 $(\pounds_{2,1}98 \text{ millions})$ in 1950.

Amendment to Society's By-laws.—At a special meeting of the Pharmaceutical Society's Council held at Nottingham on September 2 the proposed amendments to the by-laws—approved at the last ordinary meeting of Council—to alter the registration and retention fees for premises registered under the Pharmacy Acts were confirmed a first time, in accordance with the requirements of the by-laws,

International Certificates of Vaccination.—The International Sanitary Regulations adopted by the fourth World Health Assembly, and accepted by H.M. Government (see C. & D., August 23, p. 242) come into general operation on October 1. They prescribe new and simpler forms of certificates of vaccination against smallpox and cholera. The international certificate of vaccination against

typhus has been discontinued, as that vaccination is no longer required internationally.

Foot-and-Mouth Disease. — An "Interim Report on Research Work at the Research Institute, Pirbright, Surrey," on foot-and-mouth disease prepared by the Agricultural Research Council and published by H.M. Stationery Office, on August 28, price sixpence, includes information about the essential conditions for the study of the disease, the different types of virus and the ways in which they are identified; the development and preparation of vaccines; and the interchange of information with workers in other countries

American Apparatus for British Research.—The mission to the United Kingdom of the Mutual Security Agency has issued a partial list of scientific equipment supplied by the United States Government to British research laboratories. The list shows that the chemical research laboratory of the Department of Scientific and Industrial Research has received a Podbielniak hyd-robot low-temperature still, which is being used for preparing gaseous hydrocarbons for distribution as standards for mass spectroscopy, isolating organic compounds, and investigating native raw materials as sources of organic compounds; a photo-nephelometer for quantitative determination of turbidity; and a small highpressure pilot plant for catalytic flowthrough experiments in the synthesis of chemicals from readily available materials.

Insurance Credits for Students?—The National Insurance Advisory Committee is considering a preliminary draft of regulations under which a person who claims unemployment or sickness benefit after completing a period of full-time education or unpaid apprenticeship would (for the purpose of those benefits only) receive

credits for such period as would affect claim, provided that he had paid at letwenty-six contributions as an employed self-employed person (apart from contributions during national service) and that had already paid the twenty-six contributions before beginning the education course or apprenticeship. Any objections the regulations should be sent to the sectary of the Committee, 30 Euston Squa London, N.W.I, before September 30.

LOCAL NEWS

Appeal for Marigolds Answered.—appeal by the pharmacists of the Long Homœopathic Hospital recently for sm bunches of marigolds (Calendula off nalis) was quickly answered by the pub. The drought was said to be responsifor the crop failure in the gardens wh usually supply the hospital's requireme

Pharmacy Plans Passed.—Windhill operative Society, Ltd., have had pl passed for a block of shops, including pharmacy, in the main shopping cer of Shipley.

Luncheon to Dr. J. S. White.—Pa Davis & Co., Ltd., Hounslow, Middle recently gave a luncheon in honour Dr. J. S. White on his retirement (see C. & D., August 9, p. 179, and this is p. 311).

Long Service Presentations.—
directors of Allen & Hanburys, Ltd., I
don, recently presented Mr. W. T. St
(of the bottles department) with a che
for £25, and Mr. W. W. Harris (a su
cal instrument repairer) with a gold w
let watch, to mark the completion by
of fifty years' service with the compa

Manx Health Service Charges.—
wald the Manx Parliament, recently
proved regulations increasing the cha
for spectacles and artificial teeth u
the National Health Service. The
charges for spectacles are to be the sam



WORKS VISIT. Twenty-six member Dudley, the bridge and Branch of the Ph ceutical Society, I D. wood (chairman) Powell (secre visited the labora and works of Laboratories, Ltd Greenford, Midd on August 21.

use in England. From July 5, 1948, to arch 31, 1952, 22,234 pairs of spectacles re supplied and payments to opticians alled £71,596.

Preston Association's Guild Dinner.— ne Preston Pharmacists' Association held Guild dinner and dance in Preston August 28. Each lady present received gift of a Guild-crested wine glass. The yor of Preston (Mr. J. J. Ward) told members that he had discovered that far back as the 1642 and 1662 Guilds, chemists had had a weekly rota ieme. In 1816 there were only four iggists in Preston and from those early indations the association had developed. chairman of the local Executive uncil, he testified to the high standard pharmaceutical efficiency which existed Preston. Mr. F. Smithson said that of ts of some of the 3,000,000 prescriptions pensed in Preston since 1948 there had n only one case serious enough to wart a penalty. Mr. T. Heseltine (vicesident of the Pharmaceutical Society) 1 the Society wanted to raise the tus of pharmacy in Britain and to give tection to the public. Mr. C. Orrell airman) paid tribute to pharmaceutical earch workers.

SPORT

olf.—Manchester Chemists' Golfing Society, Upton Golf Club, Prestbury, on August 13. repetition for Kerfoot trophy: 1, T. Williams, 2, K. Batty, 72. At Brømhall Park Golf Club, August 27. Stableford four-ball competition for inson prize: Winners: W. E. Phillipson and Bowan, 37 points; runners-up: C. V. Wanless J. Dawson, 38 points.

ricket.—Johnson & Johnson (Gt. Britain), Annual match between Slough admin'strative es (supplemented by London marketing departt) and Portsmouth factory held at Portsmouth August 31. Portsmouth won with 200 runs for wickets (Ronnie Mould, formerly from Gare, the star). Supporters of the Slough team ed Portsmouth by coach and after the match t round the factory.

wis.—Ulster Chemists' Bowling Club won turn match with the Ulster Motor and Cycle lers at Cliftonville green, Belfast, by ten shots 55). It was the chemists' first success against motor traders. Skips and scores:—Chemists: Iterling, 19; T. McCrea, 18; J. Caldwell 21; McLean, 17. Motor Traders: W. Chisholm, G. Best, 21; G. Wolsey 12; J. Carrothers, 17. The match the chemists entertained their ts to tea in the pavilion. Mr. J. Caldwell etary-treasurer of the chemists' club) welled the visitors. Mr. H. Spence (president of motor traders) returned thanks. A message of wishes was sent to Mr. Ritchie, who is in Musgrave Clinic, Belfast.

OVERSEAS NEWS

New Scrum Plant.—The new central plant of the Hungarian Phylaxia Scrum-Producing Institute was recently completed at a cost of nearly 30,000,000 forints.

Canadian Pharmaceutical Association.—Matters on the agenda for the annual meeting of the Canadian Pharmaceutical Association, Toronto, August 18-21, include the status of pharmacists in the armed forces, the possibility of establishing a permanent building for the Association, and the possibility of a fair trade law for Canada.

Pharmacy History in Paintings.—An exhibit of fourteen original oil paintings, depicting highlights in the history of pharmacy up to about 1,000 A.D., was a feature of the recent centennial convention of the American Pharmaceutical Association. Parke, Davis & Co., commissioned the paintings, which are part of a series to be completed by a Detroit artist (Robert A. Thom) in 1955. Full-colour prints of the paintings are being distributed to 85,000 pharmacists, colleges, students and others in the United States, Canada, Puerto Rico, Hawaii, Philippines and the Canal Zone.

Chloramphenicol Distribution in U.S.A. —The United States Food and Drug Administration has announced its decision to permit the continued distribution of chloramphenical provided that containers are labelled: "Warning: Blood dyscrasias may be associated with intermittent or prolonged use. It is essential that ade-quate blood studies be made." The new regulations follow a review of the action of the drug undertaken by a committee of American National Research Council on behalf of the U.S. Food and Drug Administration. In its report the committee said that: 1. Cases of blood dyscrasias (aplastic anæmia, thrombocytopenic purpura, granulocytopenia, and pancytopenia) have been associated with the administration of the drug. 2. Although that has been uncommon, it is sufficiently important to warrant a warning on the label of packages of the drug and in advertisements of the drug and the recommendation that chloramphenical should not be used indiscriminately or for minor infections. 3. In view of the paucity of information at the present time the committee recommended that further studies of serious reactions to chloramphenical and other drugs be promoted.

N.H.S. STATISTICS

In Stoke-on-Trent in 1951-52 there was an increase in the cost of the pharmaceutical service from £265,426 to £331,493.

In Surrey in 1951-52 pharmaceutical services cost £1,209,241 against an estimate of £931,000. Average cost of prescriptions was above that for the country, but cost per person was 18.74d. against 20.99d. for the whole country.

In Warrington for the year ended March 31, 1952, the pharmaceutical services cost £112,972. Prescriptions dispensed totalled 623,000. For the year ended March 31, 1951, the services cost £88,265 and 627,816 prescriptions were dispensed.

East Ham Pharmaceutical Committee in a recent report records that during 1951-52 pharmaceutical services in the borough cost £118,839; the number of prescriptions was 639,406. The number of pharmacies was twenty-nine. In 1950-

51 the cost of the pharmaceutical ser was £88,445.

In England 16,481,896 prescrip (10,427,819 forms) costing £3,072 were dispensed in May 1951. For 1951 the corresponding figures 15,634,414 (9,959,387) and £2,976, and for January-June 1951, 113,918 (72,409,347) and £19,803,114.

Buckinghamshire Pharmaceutical Comittee in its fourth annual report so that for the year ended March 31, it total payments to contractors (inclus appliance supplies) amounted to £329, and payments for rota services £3,473. The number of persons on tors' lists at March 31, was 377 Under the drug testing scheme fiftytests of drugs and nine of appliances taken during the year. Only three (two of drugs and one an appliance) referred to the Pharmaceutical Secondition of the property of the serious action in any case.

PHARMACEUTICAL MAN-POWER IN U.S.A.

According to a survey recently completed by the United States Department of Labour, there will probably be a growing demand for registered pharmacists in America for many years. More than 100,000 pharmacists were in employment in early 1952. Over 85 per cent. were in retail. The trend towards shorter hours for pharmacists without a corresponding reduction in the number of hours "drug stores" are open is tending the number of pharmaincrease cists needed. The average hours worked by pharmacists per week are estimated to have declined as follows: Seventy in 1929, sixty-five in 1935, and approximately fiftyfive in 1945. The forty-eight-hour week became fairly common by 1951, although many pharmacists continued to work longer hours.

The outlook for the retail drug trade is good. The growing prescription business may lead to the employment of additional pharmacists in some drug stores. In many shops in America, however, pharmacists spend part of their time "dispensing" sodas and doing other non-professional work. Such shops, therefore, could handle a much larger volume of prescriptions without having to employ additional pharmacists.

In 1951, about 7,000 registered pracists were employed by manufacts and wholesalers in the United States. It of those pharmacists were medical-ser representatives or "detail" men, vis general practitioners, hospitals, and estores. Additional employment opporties for pharmacists, particularly twith graduate training, are expected to velop in the research field. The 6,800 pitals in America employed about 3 registered pharmacists in 1951. Shospitals often make arrangements willocal drug store for their pharmaceus supplies and services, but recently an creasing number have established own pharmacy departments.

Entrants Increasing

Between 1925 and 1932 the pharm course was extended from two to years and by 1951 a few colleges were crating on a five- or six-year basis. Nother less, the numbers of students grading has been increasing, although not king pace with the demand. Du 1940-45 the numbers graduating averabout 1,700 per year; by 1949 the nur jumped to 4,000; in 1951 exceeded 5, and for 1952 and 1953 is expected to 4,400.

TOPICAL REFLECTIONS

Vottingham

When today's issue reaches your subcribers, the fourth Nottingham meeting of he British Pharmaceutical Conference will e ended or nearly ended. The particulars iven on August 30 (pp. 285-94) about ocal businesses and their proprietors were vell-timed and, in addition, were of special nterest to those who remember the Conerence of 1922. It is pleasant to find ome of the oldest establishments in the orough still occupying their former posiions. I need hardly remind readers of this aragraph that Nottingham has its lists of well-known poets and painters, and hat Daffy's Elixir and Abbey's Salt are ssociated with the locality. The Nottingam Pharmacists' Association, founded in 868, has an exceptional record of coninuity and prosperity. As you point out, t contributed generously to the funds of he Chemists' and Druggists' Trade Assoiation at the time of the Shepperley case. This year having included the seventy-ifth anniversary of that important lawsuit, stablishing the right of pharmacists to give advice at the counter to the best of heir ability, I may perhaps make a further eference to it. From your summary in the Z. & D., 1922.I.850 it appears that Mr. George Shepperley, a Nottingham pharmaceutical chemist, was summoned, under he Apothecaries Act, 1815, for having ecommended a saline mixture to a cusomer who complained of a sore throat. The chief witness for the prosecution was Mr. Thomas Jolly Death, whose name, you observed, "afforded an opportunity for udicial humour too obvious to be missed."

Uncollected Goods

The editorial articles in your issues of August 23 and August 30 (pp. 258, 284) on the Disposal of Uncollected Goods Act, 1952 should be read and kept for reference by everyone in business who has, or is likely to have, charge of goods left for repair. Cameras are one though not the only kind of such goods. The conditions aid down in the Act are, at first sight, more intricate than one would have expected. Probably an attempt has been made to provide against every contingency. It will suffice here to note three points. (1) The goods of one customer must not be disposed of in a lot with goods of another customer. They must, with certain exceptions, be sold by public auction.

(2) If the goods are sold, records pertaining to the sale must be made within seven days and be kept for six years. (2) When goods have been sold, the trader may make certain additional charges. A practical hint may be worth adding for the use of salesmen who do not already know it. Goods should never be accepted as security for a so-called temporary loan.

Mexican Pharmacopæias

Reprints just received from the American Institute of the History of Pharmacy are "A Survey of the Status of History of Pharmacy in American Pharmaceutical Education" (from "The American Journal Pharmaceutical Education") and "Origins and Development of Mexican Pharmacopeiæ" (from "Bulletin of the History of Medicine," Vol. XXVI, No. 1). The first, by Mr. Glenn Sonnedecker and Dr. George Urdang, is well furnished with statistics, and should be studied by British teachers of the subject. The second, by Dr. J. Joaquin Izquierdo, professor at the Escuelas de Midicina Universitaria y Medico-Militar in Mexico, is of great interest as a record of the compilation of a national pharmacopæia after repeated attempts. In 1824, three years after Mexico obtained political independence, an academy of medicine and surgery was reestablished in Puebla. One of its aims was "to proceed to the arrangement of a Pharmacopæia in which native or Indian drugs would always have a preferential place." In 1832, under the title "Ensayo para la Materia Medica de Farmacopea Mexicana," what is considered to be the "first pharmacopeial essay written and printed in any of the republics of Latin America" appeared. A group of pharmacists in the city of Mexico formed an academy in 1838 with the main object of preparing a pharmacopœia: it was published in 1846. A fresh start was made in 1871 by the founding of the Sociedad Farmacéutica (the former academy having lapsed) with the special purpose of compiling a new pharmacopæia. In 1874 the book appeared; it was in such demand that a second edition came out in 1884, and a third in 1896. The use of the lastnamed was made compulsory. A fourth edition was issued in 1904, and a fifth in 1925: a successor, entitled "Farmacopea Nacional," was completed so comparatively recently as 1930. Xrayser

COMPANY NEWS

P. B. Cow & Co., Ltd.—An amalgamation has taken place between the Peradin division of the company located at Freshford, Somerset, and the Watercraft Co. (Bristol), Ltd. The new company formed will be known as Peradin & Watercraft, Ltd., and will continue to operate at Freshford, near Bath, as a wholly-owned subsidiary of the P.B. Cow group. Mr. F. E. J. Biles is managing director.

BEECHAM GROUP, LTD. — Income from sales in the year ended March 31, was £25,411,324 against £23,066,769 in the previous year but owing to a rise in costs the trading profits contracted by £130,000 (see C. & D., July 12, p. 39). Raw materials and services absorbed £2,903,274 £3,325,790 (£2,605,907); advertising (£2,941,582) and taxation. £1,509,856 (£1,602,166). Profit from export and overseas business was £1,245,308 (against £1,266,893). The chairman (Sir Stanley Holmes) welcomes the decision to introduce sponsored television and believes the opposition to sponsored radio is shortsighted and will prove increasingly harmful to the country's export trade. Of the principal subsidiaries, Beecham Maclean Holdings, Ltd., show a net profit of £379,070 (against £309,655); Eno Proprietaries, Ltd., £185,284 (£237,828); Macleans, £212,863 (£203,166); A. F. Sherley & Co., Ltd., £4,242 (£8,598); Veno Drug Co., Ltd., £96,243 (£104,275) and Pritchard & Constance (Manufacturing), Ltd., £21,407 (£18,359).

New Companies

CHEMICAL ENGINEERING (STOKE-ON-TRENT), LTD. (P.C.). — Capital £2,000. Tom Steventon and John P. Lyons, directors. R.O.: Sentinel Buildings, Tunstall, Stoke-on-Trent.

ELLISON PHARMACY, LTD. (P.C.).—Capital £5,000. To acquire the business of H. Bennett (Pharmacy), Ltd., 170 Burton Road, W. Didsbury, Manchester. Denys M. Ellison, Ph.C., and J. Ellison, directors.

Keeler Instrument Developments, Ltd. (P.C.).—Capital £200. To carry out research work in connection with the manufacture of scientific, industrial and medical instruments, etc. Basil J. A. Bard and Ernest Jones, subscribers. R.O.: I Tilney Street, London, W.I.

OWENS MEDICAL HALL, LTD. (P.C.).—Registered in Dublin. Capital £6,000. To

acquire the business of a chemist and drug gist now carried on by Elizabeth Lynch a 24 Main Street, Bagenalstown, co. Carlov as Owens Medical Hall. James B. Lynch M.B., and Edward Meaney, M.P.S.I., subscribers. First directors are not named.

Dorset Concentrates & Mineralistic, (P.C.).—Capital £10,000. To carron the business of animal nutrition specalists and manufacturers of and dealers invitamins and all forms of chemical conatural additives, etc. Frank E. Davis an Marjorie G. Alderton, subscribers. Fir directors are not named. Solicitors: C. (Metson & Co., 58 Mark Lane, London E.C.3.

BUSINESS CHANGES

PETERBOROUGH CO-OPERATIVE CHEN ISTS, LTD., Park Road, Peterborough Northants, are opening a pharmacy at 3 High Street, Stamford, Lincs.

THE MINISTRY OF NATIONAL INSURANC has removed its headquarters to 10 Joh Adam Street, London, W.C.2 (telephone Whitehall 9066).

GEORGE LIGHTFOOT & SON, 55 Wigte Road, Carlisle, have taken over the bus ness conducted by Mr. J. W. B. Erringto M.P.S., at 16 Scotland Road, Stanwi Carlisle. It will be managed by M Maurice Lightfoot, Ph.C., M.P.S.

MR. G. ROLAND HARVEY has clost down, owing to illness, his business drugs and chemicals at 29 Hampstead H Gardens, London, N.W.3. Mr. Harvey private address is 47 Gayton Road, Lodon, N.W.3, but he is at present in he pital.

Appointments

NORTHERN IRELAND DISTRIBUTORS, LTI Glenarm, co. Antrim, have appointed M W. A. Lilley, M.P.S.N.I., their agent f Northern Ireland and the Isle of Ma Mr. Lilley took over on September 1.

GOYA, LTD., have appointed the following additional representatives: Messi R L. Fearn (southern part of the Weighting Righting Righting); P. D. Mote (Leics, Rutland, Nortants, Beds, Hunts, Herts, Cambs, and Nofolk); F. T. Prentice (Liverpool area at West Lancs); and A. E. Watson (Sout western London postal districts, south the Thames and Surrey).

PERSONALITIES

Mr. David Pach has completed thirty years with the business of P. J. Danby,



Mr. David Pach

Amsterdam, Holland (agents for many British, French, Italian, Spanish and Norwegian pharmaceutical and chemical manufacturers) of which he has been sole proprietor since the death of his former partner the founder of the business.

Mr. Актник Gordon Lock, M.P.S., Grimsby, has presented a

silver rose bowl to the Cleethorpes sailing club as an annual trophy for national twelve-feet racing dinghies.

DR. GEORGE H. MANGUN (head of the clinical chemistry division, Henry Ford Hospital) has been appointed research director of the Warner Institute of Therapeutic Research and of the research division of the Chilcott Division of William R. Warner, Inc.

MRS. EMILE CHEHAB (consultant analyst to the Lebanese Army, customs, courts and railways) is in the United Kingdom on a short visit, under the auspices of the British Council. Her tour includes visits to the factories of Boots Pure Drug Co., Ltd., Nottingham, and Glaxo Laboratories, Ltd., Greenford, Middlesex, Mrs. Chehab is a Doctor of Pharmacy of St. Joseph's University, Beirut.

DR. J. S. White, who has retired from the service of Parke, Davis & Co., Ltd., (see p. 306), joined the medical department of the company in 1911 as a pharmaceutical chemist, later qualifying in medicine at St. Bartholomew's Hospital, London. He was house physician to Lord Horder, and for three years edited St. Bartholomew's Hospital journal. In 1930 he became head of the medical department of the company's European branch and, two years ago, was made the first director of the department of clinical investigation established in London. Dr. White has lectured on physiological standardisation, endocrinology, immunology, allergy, antibiotics and other subjects, to branches and divisions of the Pharmaceu-

tical Society and British Medical Association and to leading medical societies in Great Britain, Sweden, Norway, Denmark, South Africa, Egypt and Mediterranean countries, Following a lecture in Istanbul he was elected an honorary member of the Turkish Medical Association and, in Athens, was made an honorary member of the Medico-Chirurgical Society.

DEATHS

Downing.—Recently, Mr. Alfred Downing M.P.S., I Medfoot Terrace, Plymouth,

aged seventy-five. Mr. Downing was the first superintendent of the Plymouth Co-operative Society, Ltd., a position which he held for twentyseven years. was a former secretary and treasurer of the Plymouth Branch of the Pharmaceutical Society, one of the first members of local Pharmaceuti-



cal Committee at the inauguration of the (1912) National Health Insurance scheme and a member of the original National Health Service pricing bureau. He was a member of the local Executive Council up to the time of his death,

Mr. A. G. M. Madge, M.P.S., writes: "He was held in high esteem by all his colleagues in the profession. By his personality, wisdom and demeanour he endeared himself to all those with whom he came in contact. He was one of the Grand Old Men of pharmacy, and all in Plymouth will mourn his passing. He had the misfortune to see his department practically wiped out during the blitzes, but with his indomitable courage he immediately began to rebuild it.

EGLINTON.—At Belfast, on August 28, Mr. Thomas Johnston Eglinton, M.P.S.N.I., 35 Lisburn Road, Belfast. Mr. Eglinton qualified as a registered druggist under the Pharmaceutical Society of Ireland in 1913 and as a pharmaceutical chemist under the Pharmaceutical Society of Northern Ireland in 1926.

FERRIS.—On August 6, Mr. Alfred Ernest Ferris, M.P.S., c/o J. T. Davy, Ltd., 128 Fore Street, Edmonton, London, N.18, Mr. Ferris qualified in 1923.

HEALTH SERVICE IN NORTHERN IRELAND

A MEETING of the Northern Ireland General Health Services Board was held in Belfast on August 27. A reply was received from the Ministry of Health and Local Government to a suggestion of the Board that prescribing under the Health Service should be restricted to substances contained in an up-to-date Formulary. The Ministry, while in sympathy with the Board's desire to reduce costs, did not consider that a suitable alternative had been put forward to the present procedure, whereby the Central Medical Committee determined whether a substance was or was not a "drug" and whether the drugs and appliances prescribed by a doctor were more than were reasonably required for proper treatment.

Appliance Suppliers to Hold Stocks

It was reported that the Medical Advisory Committee had considered a proposal that certain appliance suppliers should not be required to stock all the prescribed appliances and had decided that, as chemists were required to stock items which they seldom dispensed suppliers should also stock all prescribed appliances. The Committee also decided that, in view of the terms of the Cohen report, Ardena covering cream could not be regarded as a "drug," as it could be used as a cosmetic. It also appeared unlikely that it would be available through all chemists on the

board's list. THE PHARMACIST referred to a requirement in the regulations that each appliance must conform to a specification in the. Drug Tariff, and pointed out that the new Tariff did not contain a specification that would cover Medilintex, which the Board had so far allowed to be prescribed. The Committee agreed that the Ministry should be requested to add a specification to the Drug Tariff to cover Medilintex, It was reported that the Ministry had decided that a specification corresponding to Nusan could be included in the Tariff, but not one corresponding to Uro. Sulphonet. Bicoude catheters and rubber finger stalls were to be regarded as part of a doctor's normal equipment. The Committee decided to ask the Ministry to include "moulded rubber catheters" in the list of appliances. The Secretary asked for a ruling whether Hepovite tablets could be regarded as a drug. The Committee agreed that, as the Central Medical Committee

had held that these were not drugs, an prescription received for the tablets shoul be dealt with on the same basis. It als ruled that, on the information available Nulacin tablets appeared to be predomir antly a food; the pharmacist was instructed to make further inquiries into the circumstances of such supply.

Dispensing Doctors

Twenty-nine dispensing doctors were reported to be in towns or villages where chemist was in business. Sixteen of their resided in the same town or village as nor dispensing doctors. That seemed incorsistent. There were also four doctors whereided three to four miles from a chemis and might easily be able to send more of their patients to a chemist without incorvenience. After consideration the Committee recommended that the thirty-three doctors should no longer be required to dispense unless they could show goo reasons why they should be permitted toontinue to do so.

The Assistant Secretary read a lette from a doctor stating that he had issue to a chemist a prescription for a patier on his dispensing list who had been dicharged from hospital. The chemist habeen instructed by a hospital specialist to supply certain appliances and apply the patient's doctor for a covering prescription. The Board considered specialist action to be most irregular and instructed that the chemist should be informed that he had acted in breach of the Regulation It was also agreed to bring the facts the notice of the Hospitals Authority an request its observations.

Full Service Hours Demanded

A letter was received from the Hospita Authority stating that pharmaceutics items required by hospital out-patients for the treatment of squint would be supplie from hospital pharmacies in future. A application was received from a chemisfor inclusion in the Board's pharmaceutics list for the sole purpose of fitting surgice appliances at a proposed branch establishment on one day a week between 7.3 and 10 p.m. The Board's pharmacist ha informed the chemist that, unless he waprepared to provide such services durin normal hours each day the applicatio could not be accepted. The Boar approved that action.

TRADE NOTES

Change of Distributor.—C. E. Fulford, Ltd., Carlton Hill, Leeds, 2, announce that Caleno stabilised calcium-aspirin is now available from them.

Now in Sliding-lid Box. — From Sepember 15, Ferris & Co., Ltd., Bristol, 2, are sending out Nigroids in a handy plasic box with sliding lid.

Package Redesign.—Saville Perfumery, Ltd., 124 Rickmansworth Road, Watford, have replaced the previous pack of June



berfume with the neckless bottle, modernsed label and pale green box illustrated.

Not Yet Quite Ready.—Thermos (1925), td., Seymour Road, London, E.10, anounce that production of their Thermos $4\frac{1}{2}$ half-pint vacuum flask is due to comence in the first week of October.

Children's Home Perm.—On Septemer 17, national advertising starts for the lichard Hudnut children's home perm, nanufactured by Richard Hudnut, Ltd., ower Road, London, W.4.

Spectacles for Television. — George ishel & Co., Ltd., 21 Coram Street, Lonon, W.C.1, illustrate on another page heir TeleVizor spectacles, which are designed to . . . ensure restful vision."

Daily Deliveries in Nottingham Area.

–J. H. Haywood, Ltd., Warser Gate, Notngham, offer a daily van delivery service i "ethical" and advertised proprietaries, indries, dressings, etc., and National lealth Service appliances.

Disinfectant for Lynmouth. — Among ne first companies to assist the British ed Cross Relief Undertaking in its work. Lynmouth following the recent flood amage were Jeyes Sanitary Compounds o., Ltd., Chigwell, Essex, who supplied nough material to make 8,000 gall, disfectant fluid.

Chemical Caponisation of Cockerels.— Evans Medical Supplies, Ltd., Speke, Liverpool, 19, announce that Caponets stilbœstrol implants for the chemical caponisation of cockerels are now available. They are being advertised to poultry farmers.

Individually Wrapped.—Ulter (Bradford), Ltd., Bradford, Yorks, are now issuing Ulter stomach tablets in a wallet pack of twelve individually wrapped tablets in counter display box of twelve; and a new 100-tablet slide box with tablets individually wrapped in strips of ten. The product is being extensively advertised.

Courses in Optics.—The 1952-53 courses conducted by the school of the Institute of Optical Science will commence on October 2 at the College of Preceptors, Bloomsbury Square, London, W.C.1. At the opening of the session the Earl of Listowel will speak. The address of the Institute is now 23 Southampton Place, London, W.C.1.

Ethical Products List.—Unichem, Ltd., 3 Broadwater Road, London, S.W.17, have issued a new edition of their alphabetical reference list of "ethical" proprietaries. The list, which comprises 216 pp., between stiff covers, includes therapeutic index and gives brief clinical indications. It is issued free to chemist customers of the company and to members of the Unichem Association, but is priced at 10s. per copy (22s. 6d. interleaved) for others.



COLOUR-BREAK AMPOULE.—A new and easy-tobreak ampoule has been introduced in the United States by the American Kimble Glass Co., a subsidiary of the Owens-Illinois Glass Co. Called "Colour Break," it takes its name from the patented blue ceramic band around its neck. No scoring or sawing is required to open it.

Souvenir of Piccadilly's Eros.—To enable visitors to London, like visitors to Paris, to take home a perfume souvenir, Delavelle (Sales), Ltd., 35



Old Bond Street, London, W.I. have introduced the Blue Orchid bottle illustrated, which is modelled on the figure of Eros in Piccadilly Circus.

Display "Mobiles."—Adapting to commerce a form of art-groups of counterbalanced units made of coloured light metal rotating in free movement at the slightest disturbance of the surrounding air -brought into Britain by an American, Alexander Calder, Miles Griffin Co., Hampstead Road, London, N.W.1, are producing advertisement "mobiles" in cardboard. An advantage of the Miles Griffin mobiles is that they can take up space never before utilised in shop or showroom. By means of simple wire or cardboard "suspender" they hang away from a wall, while specially designed "suckers" enable them to hang from a window or an electric light bulb. The mere heat from a radiator or a lamp—or any vibration—keeps them constantly on the move.

Exhibitions for Photo Finishers.—During the winter months Kodak, Ltd., Wealdstone, Middlesex, are presenting, at their wholesale branches, an exhibition of the

latest Kodak equipment for photo finishers. On show will be the auto-Velox printer, Kodak finisher printer, Kodak specialist enlarger, Kodak glazing machines, with a range of workroom sundries. The date schedule for the exhibition is as follows:—Bristol, September 30 to October 3; Glasgow, October 14 to October 17; Belfast, October 21 to October 23; Manchester, November 11 to November 14; Birmingham, November 18 to November 21; Kingsway, December 1 to December 5; Leeds, January 13 to January 16; Newcastle, January 27 to January 30; Dublin, February 17 to February 20.

Available for Trial. — The Watford Chemical Co., Ltd., have recently developed two new products which are now in pilot production stage. Both chemicals in small amounts to interested clients (the first-named in quantities up to 1-ton lots if necessary). They are 2 hydroxy-4 methyl quinoline (melting point, 220°C.) and 2 hydroxy 4:6:8 trimethyl quinoline (melting point, 252°C.). The products are off-white powders and have the following suggested uses:-As fungicides (especially the copper salt); intermediates for esters in perfumery as fixatives; dyestuff intermediates; possible pharmaceutical intermediates; and, etherified or esterified to makers of quaternary ammonia compounds, owing to complete lack of odour.

COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

Monday, September 8

ROMFORD BRANCH PHARMACEUTICAL SOCIETY, Unicorn, Gidea Park, Romford, Essex, at 7,30 p.m. Dr. J. Mervyn Thomas (medical officer o health for Chelmsford) on "Infectious Diseases their Complications and Modern Treatment."

Tuesday, September 9

WEST KENT BRANCH, NATIONAL PHARMACEUTICAL UNION, ROYAL Bell Hotel, Bromley, at 8 p.m Address by Mr. S. M. Lennox (vice-chairman Chemists Federation).

Wednesday, September 10

EPSOM AND SUTTON BRANCH, PHARMACEUTICAL SO CIETY, 7 The Pavement, Grove Road, Sutton, 2 1.30 p.m. Coach trip to Windsor. Dinner at Cobham, Surrey.

Thursday, September 11

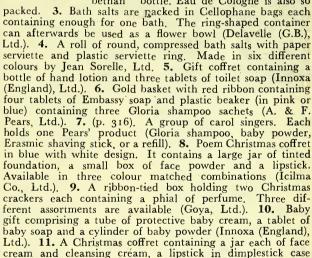
ROYAL PHOTOGRAPHIC SOCIETY, 16 Princes Gat-London, S.W.7, at 3 p.m., Official opening o 97th annual exhibition followed by private view ing. Open to public from September 12 to Octo ber 12; Mondays to Fridays 10 a.m. to 8 p.m (Tuesdays to 6 p.m.); Saturdays 10 a.m. t 5.30 p.m.; Sundays 2.30 to 5.30 p.m.

ITEMS FOR CHEMISTS' CHRISTMAS TRADE





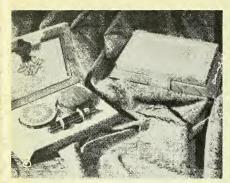
1. The three bears soap novelty packed in a box resembling a bed (Vinolia Co., Ltd.). 2. English lavender perfume packed by J. & E. Atkinson, Ltd., in the "Elizabethan" bottle. Eau de Cologne is also so

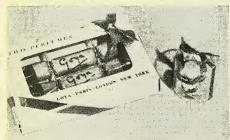






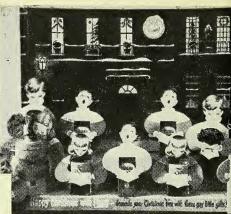












and a powder rouge compact (J. & E. Ltd.). 12. Three Flowers bath coffret. It six cubes of bath salts and a cylinder of tale der (Richard Hudnut, Ltd.). 13. A Christm ing card holding a sachet of shampoo powde Co., Ltd.). 14. Three packs of Ebe tinted b der made by the Oatine Company: Posy of (left), one flower enough for one bath; triple (top) containing three different tints of enough of each for three baths; and a greet

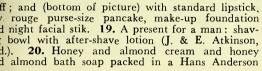
containing four packets each holding powder suffic three baths. 15. (p. 317). Twelve egg-shaped bath sa packed in a carton made in the shape of a motor lorry (Jean Sorelle, Ltd.). 16. One-ounce bottles of bath essence, available in various perfumes (Goya, Ltd.). 17. Goya's bath salts gift — a "travel size" jar of bath salts packed with a matching talcum powder in a powder blue box 18. Gift sets by Max Factor Hollywood and London (Sales), Ltd.; medium-size face powder; with lipstick; with make - up foundation; with powder























house container (A. S. Hinds, Ltd.). 21. Gift pack of four shampoos, designed to be posted like a Christmas card (Camilatone, Ltd.). 22. Christmas coffret with vanishing and cold creams, face powder and lipstick (Ponds Extract Co., Ltd.).



NEW PRODUCTS AND PACKS

Hexachlorophene Shampoo.—J. Bibby and Sons, Ltd., King Edward Street, Liverpool, 3, have introduced, as a companion to their Cidal toilet soap, Cidal cream shampoo, which, like the soap, contains 2 per cent, hexachlorophene. Advertising to the public is in progress.

Delayed-action Asthma Tablets. — Moore Medicinal Products, Ltd., I Queen's Terrace, Aberdeen, and 64 Gloucester Place, London, W.I, are introducing to the medical profession a new product, Brovon delayed-action asthma tablets. The components are "antispasmodics of proved value," together with a small dose of carbromal, and the tablets are enteric-coated. Taken at bedtime, they produce their effect throughout the early hours of the morning, when night attacks commonly occur.

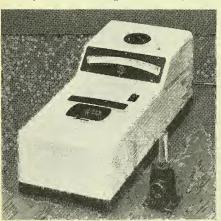
Antirheumatic. — Pharmaceutical Laboratories (Geigy), Ltd., Rhodes, Middleton, Manchester, recently introduced Butazolidin (3, 5-dioxo-1, 2-diphenyl-4-n-butyl-pyrazolidine) antirheumatic. Clinical reports indicate that Buta-

zolidin is valuable as an anodyne in case of rheumatoid arthritis. The 0.2-gm. tablets are formulated to disintegrate in the small intestine, thus obviating any risk curritating the gastric mucosa. They are issued in containers of twenty, fifty an 100, with dispensing packs of 100 and 500 5-c.c. ampoules are also available in boxe of five and fifty. See also p. 351.

Seamless Tubular Gauze Bandage.—It a 16-page booklet just produced, the Schol Manufacturing Co., Ltd., 182 St. Joh Street, London, E.C.I., introduce a net technique of bandaging by means of seam less tubular gauze, Tubegauz. The maker claim for the method that it is quicked than conventional methods of bandaging more efficient (covering without bulk over varying contours); neater; more comfor able to the patient; adaptable for use of fingers, toes, hands, feet, legs, arms an head. Tubegauz bandages are available in five sizes to meet all requirements from an infant's finger to an adult's head. Applicators for applying the bandages at made in ten sizes.

INSTRUMENTS AND APPARATUS

A New Colorimeter.—Hilger & Watts, Ltd., 98 St. Pancras Way, London, N.W.1, are marketing an entirely new



photoelectric absorptiometer (or colorimeter); the new Biochem absorptionmeter, a compact instrument specially adapted to routine use in a chemical laboratory. Embodying a sensitive yet robust reflecting type of galvanometer, the instrument has

an unusually high degree of accuracy for a single-cell type of instrument. It us a single light source for the measuring system and for the galvanometer spot lighten a low voltage lamp run, in one mode from a built-in constant-voltage transformer or, in another model, from separa batteries. By reversing the usual reading arrangement of "spot" galvanometers arousing a white matt opaque screen instea of a semi-transparent one, the makers have nabled the operator always to see the spot clearly without having to move head to secure the best illumination; the spot illumination is observed without difficulty in a well-lit room.

Controlling Flow.—Manufacturers where to record or automatically contribute flow rates of liquids and gases mobtain a copy of a brochure, "Catalog 1 I.Y.," issued by Solway Flowrato. Ltd., Abbey Road, Park Royal, Londo N.W.10, a company formed in associative with the Electroflo Meters Co., Ltd., England, and the Fischer & Porter Cou.S.A. The catalogue deals with the Florator flow meters for pipe lines up to aboat in, nominal bore manufactured by tompany as one of a number of production the American company's range.



BRITISH PHARMACEUTICAL CONFERENCE

NOTTINGHAM 1952



Nottingham City and University welcome the Conference

The eighty-ninth meeting of the British Pharmaceutical Conference was officially opened by the Conference president (Mr. W. J. Tristram) in the Great, Hall of Nottingham University on September 1. The Lord Mayor of Nottingham (Councillor Leon Willson) gave the members, on behalf of the Corporation and citizens, a cordial welcome to the city which they were visiting again, he pointed out, after an interval of thirty years. He paid tribute to the one man, the late Jesse Boot, afterwards Lord Trent, responsible for the foundation of the University's structure. The founder's son, the present Lord Trent, was Chancellor of the University today.

Tribute from Vice-Chancellor

The University's welcome to the Conference was given by the VICE-CHANCELLOR (Mr. B. L. Hallward). Mr. Hallward said he could not imagine a more suitable conference to be held in the University buildings because the University owed so much to Sir Jesse Boot. The Boot family

were the great benefactors of the University. The equipment of the University was good, but during a recent three-months' visit to America he had seen "wonderful" chemistry buildings. The work in Nottingham was important but "we must not be complacent." The University had professors and research students, but no room, Accommodation would have to be secured. He predicted that the next twenty years would see enormous developments in drugs and the more interesting developments would lie with the younger generation. The importance of the British Pharmaceutical Conference would grow with the "rush of scientific discovery." He gave the Conference the University's good wishes.

The Lord Mayor and Vice-Chancellor were thanked by Mr. W. J. Tristram,

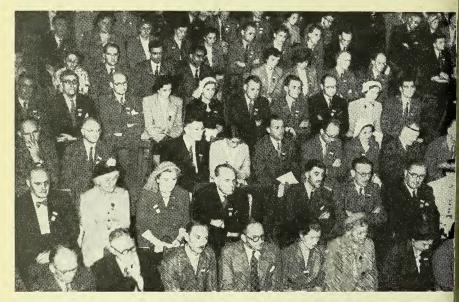
The Lord Mayor and Vice-Chancellor were thanked by Mr. W. J. TRISTRAM, who then handed over the affairs of the Conference to its chairman (Mr. H. B. Mackie). Mr. Mackie, he said, was the first Conference chairman to wear a badge of office. The badge had been designed by

the College of Arms and was shining brightly: he knew that during his chairmanship Mr. Mackie would add lustre to it. (See also p. 323).

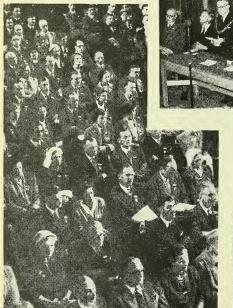
Full members of the Conference totalled well over 500. "Just everybody here," one of them was heard to remark, "has been so helpful."

Members collect their tickets at the Conference office (the dispensing laboratory of the University).





Above and below: Members assembled at the opening session.



Left to right at the table: Mr. Granville Shaw (loc chairman); the Vice-chancellor of the University (Nottingham (Mr. B. L. Hallward); the lord mayof Nottingham (Councillor Leon H. Willson), th Conference President (Mr. W. J. Tristram); th Conference chairman (Mr. H. B. Mackle); Mr. H. Treves Brown. Below: Mr. C. J. Eastland, Dr. G. f. Boyes, Mr. T. C. Denston and Mr. F. W. Adam









At left: Northern Ireland visitors. Front row: left to right: Mr. and Mrs. H. W. Gamble and Mr. and Mrs. J. McGregor. Back row: left to right: Messrs. W. P. Ewart, J. A. Brown, W. Gorman, S. E. Campbell, J. Irwin. Below: Dr. D. McCall (the Pharmaceutical Society's resident secretary in Scotland) with Mr. and Mrs. J. O. Davidson, Tunbridge Wells.



At left: Mrs. G. E. Trease; Mr. and Mrs. C. Gunn; Mrs. and Dr. L. Rowson. Above: Professor Dr. J. Buchi, Zurich, Switzerland, and Dr. E. Höst Madsen, Copenhagen, Denmark.



At left: Mr. J. Moore (secretary and a past-president of the Guild of Public Pharmacists); Mr. A. G. Shaw (president of the Guild); Mr. J. R. Elliott and Mrs. Elliott; Mrs. Moore; and Mr. D. H. S. Cox (a past-president of the Guild).



BRITISH PHARMACEUTICAL CONFERENCE, NOTTINGHAM, 195

A Warm Welcome on Arrival

Members of the eighty-ninth Pharmaceutical Conference had a foretaste of the detailed provisions that had been made for their convenience and happiness as soon as they arrived at the Conference town. Those coming by rail were welcomed by local pharmacists at a reception table at each station, many belonging to local representatives of pharmaceutical houses, were provided to supplement transport services to the University, which is two or three miles from the city centre, and to hotels used by members. Potential difficulties over transport to official functions were eliminated by the provision of special buses. Visitors arriving by road had their way made easy by welcome notices directing them through the streets of the crowded city to the University.

Arrival at Headquarters

On arrival at the Conference Headquarters, nothing could be more reassuring than the official Conference office. which was the dispensary of the University, with members of the Local Commit-tee "dispensing" Conference tickets, gilt badges bearing the member's name, notices, and other official matter for the help of members. After enrolling, members dispersed to the four Halls of Residence. At the Florence Nightingale Hall gongs summoned members to the dining rooms at 6.30 p.m. Some were already in evening dress for the evening's official reception. All quickly picked up the routine of self-service from the spotlessly clean counter, carrying their courses back to the polished wood tables. Two of the younger members were overheard discussing the chances of "going round twice" but, judged by ampleness of the food, that seemed beyond accomplishment on at least one score. In the other Halls table service was provided.

Sabotage

Members are reported to be exemplary in the tidying of rooms in their halls of residence. "Saboteurs" were believed afoot, however, for a leading member of the Conference is reported to have returned to his room a few minutes after finishing it off professionally to find it an utter shambles. The contretemps was borne with dignity, and there is no question of the beginning of a vendetta.

Overseas Visitors

Among the members attending the Coference from overseas were: from Austrlia, Mr. and Mrs. R. J. Guenther, Adlaide; Mr. and Mrs. R. S. F. Grei Queensland; and Mr. and Mrs. J. Delhunty; from Belgium, Dr. E. Nolf (predent, Belgium Pharmaceutical Assocition); from Denmark, Mr. F. Reimers, ar Dr. E. Höst Madsen, Copenhagen (predent, International Pharmaceutical Feeration); from France, Mr. M. Pasca Paris; from Germany, Dr. E. Unna, Hanburg; from Malaya, Mr. K. C. Lee; from New Zealand, Miss P. Cheel; from Swizerland, Professor and Mrs. Mirimanoff and Professor and Mrs. J. Büchi; and from the United States, Dr. C. W. Ferr (chief analyst of Burroughs Wellcome Co. (U.S.A.), Inc., New York), and Mr Ferry.

Members from Ireland

As members of the Conference fro across the Irish Sea there came, from Be fast, Mr. H. W. Gamble (president of the Pharmaceutical Society of Northern Irland and an ex-officio member of the Conference Executive) and Mrs. Gamble Mr. W. Gorman (secretary of the Sciety); Mr. J. McGregor (a member Council) and Mrs. McGregor; Messi W. P. Ewart, S. E. Campbell and Irwin (members of Council); and M. J. A. Brown.

From the Republic of Ireland came M J. P. Kissane (president of the Pharm ceutical Society of Ireland and an e officio member of the Conference Exective); and Messrs. J. G. Coleman (secrary of the Society), G. C. O'Neill at T. C. Scott (members of Council), B. Hickey, B. B. Smith and R. F. Timoney

Excursion to Southwell

Six coachloads of ladies, and a surpring number of menfolk, left the Universi in good weather on Tuesday afternoon visit the venerable Minster at Southwe The history of this magnificent edifice woutlined to the visitors, before the corpany divided into small parties to be coducted round the Minster by the verget The Minster, the diocesan church of Nottingham, is sixteen and a half miles fro Nottingham. It was built in 958. The visitors were particularly interested in the arches of the maze, the choir screen are the traceried windows.

Civic Reception

y invitation, members of the Conference ere granted the rare privilege of attending the City's Council House for an offi-



he Lord Mayor of Nottingham (Councillor Leon i. Willson, M.C., J.P.) and the Lady Mayoress Mrs. Leon H. Willson).

ial reception by the Lord Mayor and ady Mayoress (Councillor and Mrs. con H. Willson) and the Sheriff of Notingham (Councillor John Kenyon) on the vening of September 1. About 550 memers attended.

Ladies' Informal Meeting

AT a ladies' informal meeting held at lorence Nightingale Hall of Residence at he University on the morning of Septemer 2, Miss F. B. Prince (chairman of the lonference ladies' committee) welcomed ady members and introduced the secretary of the Nottingham City Museum Committee (Mr. Campion) who gave a talk on Vewstead Abbey and Southwell Minster. Vewstead Abbey, he said, nine miles north of Nottingham, was the home of Lord Byron. It was founded as a priory of Ougustinian Canons, reputedly by Henry I. Refreshments were served during the neeting.

University Reception and Dance

On Tuesday evening members of Conference were the guests of the University. After slowly winding their way down the steps to the Lower Hall, they were received there by the Vice-chancellor of the University (Mr. B. L. Hallward) and Mrs. Hallward.

The colourful scene that met their eyes was heightened, no doubt, by the dimness of the passage from which they emerged. The multi-colours of the wall lights were matched or surpassed by the dresses of the ladies and the academic robes of many of the guests.

Dr. C. H. Hampshire, who had arrived at the Conference that afternoon was among those present. So was Major Saville-Peck, who had known the Vice-chancellor as an undergraduate colleague of his son at Cambridge.

During the evening Miss F. B. Prince (chairman of the Ladies' Committee) was informally presented by Mrs. W. O. Ayers (treasurer of the committee) with a spray of flowers from committee members.

Excursion to Newstead

The ladies set out in drizzling rain on the Wednesday morning excursion to Newstead Abbey, but by the time they arrived the rain had stopped. They were met by the ladies of the Mansfield Branch of the Pharmaceutical Society, who supplemented the official guides. The excursionists were specially interested in seeing the original charter granted by Henry VIII.

Badge of Office

The badge of office of the chairman of the Conference, worn by the chairman this year for the first time, was designed by the College of Arms. It is oval in shape and is surrounded by a scroll bearing the words "British Pharmaceutical Conference." In the centre of the oval are an embossed mortar and pestle, underneath appears the date 1862. In the background are digitalis and poppy in beautiful colours. The badge has a red ribbon.

Branch Representatives' Meeting

MR. W. J. TRISTRAM (president of the Pharmaceutical Society) opened the Branch Representatives' meeting in the Great Hall of the University on Tuesday morning with an address on his visit to America.

MR. R. S. F. GREIG gave a message from

Australian pharmacists.

Some Personalities of the Conference

THE CHAIRMAN

MR. H. B. MACKIE, B. Pharm., Ph.C., chairman of the Conference, is the founder and head of the School of Pharmacy, Brighton Technical College. Perhaps his rise to the distinction of chairmanship of the Conference was inevitable from the start he received in pharmacy under an apprentice-master (the late Mr. W. F. Hay, Aberdeen) who was a life-long supporter of the Conference, as well as a former chairman of the then North British Executive of the Pharmaceutical Society. Mr. Mackie studied at the Robert Gordon College, Aberdeen, qualifying as a chemist and druggist in 1911 and passing the Pharmaceutical Chemist examination the following year. For some time he worked at St. Thomas's Hospital, London, before starting, thirty-one years ago, the Brighton School, From small beginnings the school has grown under his guidance to its present size and reputation. It now has accommodation for about ninety students. An illustrated article on the school was published in the C, \mathcal{C} D. 1951.II.147. Mr. Mackie is the author of a standard textbook on pharmacy.

THE GENERAL SECRETARIES





Messrs. H. Treves Brown, B.Sc., Ph.C. (left), and H. G. Rolfe, B.Sc., Ph.C., A.R.I.C., have held office since 1944 and 1948 respectively. Both are directors of The British Drug Houses, Ltd. From 1928 to 1934, Mr. Treves Brown was research assistant to the Codex Revision Committee, remaining until 1938 to work on the Extra Pharmacopæia, Mr. Rolfe was leader of the pharmaceutical Productivity Team which visited the United States in 1950.

AUTHORS OF SCIENCE PAPERS

Mr. Edmund Hayes, B.Sc., A.R.I.C. L.P.S.I., co-author of a paper on vitamin

A in fish-liver oils and concentrates, is now in charge of the vitamin oils laboratory of the Crookes Laboratories, Ltd., having joined the vitamin oils partment of decompany in 1948. Mr. Hayes served an apprenticeship with MacMahon, Day & Co., Limerick, and received his pharma-



ceutical education at the College of Phar macy in Dublin, He passed the Licence examination of the Pharmaceutical Society of Ireland with honours in 1942, and their joined the staff of Ward, Blenkinsop & Co., Ltd.; after experience in their fine chemical laboratories he was transferred to the pharmaceutical department, taking over the tablet and ampoule sections After studying chemistry at Liverpool College of Technology and Birkbeck College London, Mr. Hayes gained the special B.Sc. degree, honours chemistry, of London University in 1951.

MR. D. MAXWELL BRYCE, B.Sc (Chem.), B.Pharm., Ph.C., F.L.S., autho

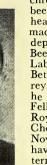
of a paper on determination clotting times, has worked mainly on blood-clotting factors since he joined S. Maw, Son & Sons, Ltd., New Barnet, Herts., after being demobilised from the Royal Army Medical Corps. He served in the Corps as a sergeant - dispenser. Mr. Bryce was



born in Edinburgh and educated at Wyg geston Grammar School, Leicester, an Leicester School of Pharmacy. He passe the Pharmaceutical Chemist examinatio n 1949. Prior to his Army service he was on the teaching staff of the biology department of Leicester College of Technoogy. Mr. Bryce is also co-author of a paper on water retention of dressings.

MR. D. N. GORE, Ph.C., F.R.I.C., coauthor of a monograph on paper partition

chromatograms has



been, since 1945, head of the pharmaceutical research department of the Beecham Research Laboratories, Ltd., Sur-Betchworth, rey. In that year he was elected a Fellow of the Royal Institute of Chemistry, and in November will have completed his term as a member of the committee

of the London section of the Institute. Qualifying as a pharmacist in 1931 from the School of Pharmacy of the Pharma-ceutical Society, London, Mr. Gore served as assistant chemist, 1932-34, in the plant and animal products research department (now incorporated in the Colonial Products Advisory Bureau). Imperial Institute, London. He was analyst in the wholesale manufacturing laboratories and consulting practice of R. A. Cripps & Son, Ltd., Hove, Sussex. 1934-38, and chief chemist with G. F. Merson, Ltd., suture manufacurers, Edinburgh, 1938-45.

MR. WILLIAM C. EVANS, Ph.D., B. Pharm., B.Sc., Ph.C., co-author of a paper on par-



chromatotition graphy as applied to solanaceous drugs, is lecturer in pharmacognosy at the University of Nottingham and a member of the board of examiners of the University. Dr. Evans obtained his Ph.D. (London) degree in 1951 for work on the application of partition chromatography to some phytochemi-

al problems in the solanaceous family. He vas educated as Lewes County Grammar

School, served his apprenticeship with Mr. H. A. Baker, M.P.S., Lewes, Sussex, graduated from Brighton Technical College in 1944 in pharmacy and in 1947 in science. In 1947 he was appointed to the teaching staff of University College, Nottingham. Mr. Evans's present researches at Nottingham are concerned with the biogenesis of alkaloids.

MR. C. L. J. Coles, B.Pharm., Ph.C., co-author of a paper on the stability of

vitamin-A alcohol is a member of the pharmacy unit, research and development division of Glaxo Laboratories. Ltd. Mr. Coles was apprenticed with Boots, Ltd., and studied at Chelsea Polytechnic, London, where gained his B. Pharm. degree in 1944, and Ph.C. diploma the following year.



Mr. H. W. Fowler, B.Pharm., Ph.C., author of a paper on infra-red heating, is a

lecturer in pharmaceutics at school of pharmacy, Leicester College of Technology. His present duties include the teaching of the unit operations and methods used in the manufacture of pharmaceutical products. Mr. Fowler was educated at Deacons Peter-School, borough, and



apprenticed with Sturton & Sons, Ltd., Bridge Street, Peterborough, 1938-42. He gained his B.Pharm, degree and Ph.C. diploma from Leicester, Mr. Fowler is also a member of the Society of Chemical Industry and of its chemical engineering group. He is a student member of the Institution of Chemical Engineers. Before joining the staff of Leicester College of Technology he was a research and analytical chemist on the technical staff of Dalmas, Ltd., Leicester.

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OL. CLVIII September 6, 1952

No. 3785

Preserving Pharmacy's Identity

s pharmacy in danger of losing its essenal character—that unique outlook that omes from handling the "raw materials," to speak, of healing with the knowledge and power that come from study of their

onstituents and properties?

In his address as chairman of the Brish Pharmaceutical Conference, 1952 (p. 29), Mr. H. B. Mackie implies that the ursuit of the obviously scientific may have aused neglect of the science that may lie eneath empiricism. Only the least disriminating will deny that two foods, or vo wines, of the same chemical composion may differ greatly in flavour and alatability. Yet when it comes to drugs ne tendency has been to insist that chehistry alone counts. Mr. Mackie's thesis not simply that nux vomica may have omething that strychnine alone may fail provide—a balance, perhaps, with ther substances contained in the bean ut that to dismiss any such suggestion as nscientific is to ignore a much more abtle and recondite chemistry which it is e proper function of pharmacists to udy, and which they neglect at peril of sing any justification for an existence parate from that of workers in other ientific fields, such as that of "pure" nemistry.

At first encounter Mr. Mackie's arguent may leave his Conference fellow ientists impatient to get back to their boratories to problems of whose scientific laracter there can be no question. But

a glance at the subject matter of the science papers this year certainly shows few that can be classified as strictly within the province of pharmaceutical research as measured, say, by the yardstick suggested by Mr. A. G. Fishburn several Confer-Of the twenty-nine papers ences ago. fourteen are concerned with assay or analysis. It may be true that they concern the assay of drugs, but would they not be presented with equal appropriateness at a conference of analysts? Of papers concerned with formulation, or with presenting medicinally used substances so that their therapeutic properties are guaranteed to the patient in fullest degree, there were possibly only seven. It may also be true that the research departments of manufacturing houses are more ready to pass on the results of original work on assay than of original work on formulation. The fact remains that without a substantial amount of pharmaceutical research by strictest definition there is no call for a British Pharmaceutical Conference at all, and Mr. Mackie's address has the merit of suggesting a line of development for pharmacy that is scientific without being the less pharmaceutical. It is summed up in a choice of phrases taken from the quotation he makes from Dr. R. L. M. Synge: the study of naturally occurring substances in their natural environment, or the chemical analysis of biological material.

If we have applied his arguments to the Conference itself, Mr. Mackie as a teacher wisely applies it to education, and addresses his words finally as a message to his teaching colleagues. "Greatly daring, we have elected to join a famous company... We must have courage equal to the responsibilities we have undertaken."

It is a stirring and provocative address and one that well maintains the high philosophical level of its predecessors in the series of which it is the eighty-ninth.

America Tires of Price Anarchy

LESS than fifteen months after the United States Supreme Court ruled out of order the price protection of branded goods, as then operated, both Houses of Congress have passed by large majorities, and the President has signed, legislation to rein-

effective "fair trade." American "fair trade" legislation has the purpose of preventing, as President Truman put it, "some merchants from selling branded items at very low prices (often below cost) in order to drive other merchants out of business." Fear has been acute among small and independent business men-" particularly druggists"-that they cannot survive against such unfair competitive practices, and understandably the secretary of the National Association of Retail Druggists has been prominent in the campaign to secure the passing of the new statute (the "McGuire Act") that restores order in a situation which in some parts, notably New York, had got out of hand in an orgy of price cutting.

It will not be lost on the "small and independent" businessmen of this country particularly pharmacists—that although the onslaught on the collective system of price maintenance has receded, there was at about the time of the U.S. Supreme Court's now happily circumvented ruling a distinct possibility that the British Government would introduce legislation to bring about a similar result. Once on the Book any anti-maintenance measures might be more difficult to overcome, and take much longer to reverse, than proved possible in America. That one of their effects, if introduced, would be an outbreak of price-cutting such as New York experienced few chemists doubt. Therefore any signs of renewed action to end resale price maintenance should be watched for, so that the opposition that has been quietly marshalled can be brought to bear before and not after a vote comes to be taken in Parliament.

Formulas on Labels

LIKE the Pharmacy and Medicines Act, 1941, the Labelling of Food Order requires labels on prepacked foods to state their ingredients.

It gives no specification of the position of the statement, or the size of the print to be used, but requires the manufacturer to set out "conspicuously" a statement of the ingredients. Very often the statements are in so small a type, or so situated, that only careful search reveals their contents. A

suggested amendment to the Order, to make for clearer definition, is put forward by Mr. J. Lawson (chief sanitary inspecto to the Manchester City Council) in his report for 1951. Mr. Lawson suggests that the Order should be amended to provid stipulations as to the position and minimum dimensions of the statement. The "Municipal Journal" takes up the point

"Any such amendment would be difficult to draft," it comments. "The mos conspicuous place for the statement is immediately beneath the trade name of tharticle; but to remain conspicuous it should not be interwoven with the manufacturer printed 'sales talk.' Obviously the size of the type could hardly be related to the size of the package; but it could be some relation—subject to a satisfactor minimum—to the size of the trade name of appellation."

The proposal has not, of course, bee adopted. It has probably not yet even bee officially considered. But as labelling requirements for foods can quite conceivable be extended to other commodities, the suggestions need closer consideration befor they should ever be applied to medicinal products, which, apart from other factors have generally a much smaller containts size. The required items should be present, and legible. Beyond that, is it necessary to go into more detailed requirements?

ECHOES OF THE PAST

TREATMENT FOR "RUPTURE

From "The London Chronicle or Unive sal Evening Post," October 24) Daniel Cad a servant in the East India company warehouse, was convicted of stealing parcel of green tea (about a pound i quantity) which he had concealed under the waistband of his breeches; and on h superior officer's stroaking him down, a the custom is, and finding a swelling, was (on enquiry into the cause of it) told the prisoner that it was a rupture he had long been afflicted with; which will thappily and it is hoped effectually cure without any painful operation except public whipping, which was recommended by the court, as a most proper remedy for swellings of that sort.



BRITISH PHARMACEUTICAL CONFERENCE

NOTTINGHAM 1952



Conference Chairman's Address

An Education for a Pharmacist

HAVE entitled my address "An Education for a Pharmacist," not, you ill observe, "Pharmaceutical Education" or even "Education for Pharmacy," indicate that I desire more latitude ian an exact interpretation of the other

vo would permit.

The person I have in ind is a professional an who understands croughly what he is oing, who comprehends he scientific basis of drugs and drug action, who is ble to evaluate critically he products he handles, ho is competent to adse physicians concerning rugs and their uses, who orks at his profession reatively and advances s service.

Education concerns two pheres. One has to do ith the human spirit, he other with material reuirements. Any profes-

on to be long-lived must insist on educaon and on education in this sense. Ierely to train competent practitioners is ally part of our purpose, and not, I think, he most important part.

arly Education

The early education of the future pharacist should be as broadly based as posble, designed to discover aptitudes and tent potentialities, and should seldom denerate into formalised and didactic inruction. Making the necessary allowaces for all generalities, I hold it true at you can only teach a man what he nows, which is only another way of saying that the word education means exactly hat it says. The last years at school hould be spent in the study of exact itences, where the discipline of attention detail is cardinal, but room must be



Mr. H. B. Mackie

found for the pursuit of purely cultural studies. I would like to see Latin restored to its original place, but failing this, the wide sweep of world history will give that sense of the past and feeling of continuity that the study of Latin manages so subtly

to convey. It should be possible to determine before the end of a pupil's schooldays whether or not he is likely to succeed in pharmacy. The test of a successful early education is not the amount of knowledge that a pupil takes away from school, but his appetite to know and his capacity to learn. If the school sends out young people with a desire for knowledge and some idea of how to acquire and use it, it will have done its work.

With young people who have had this type of

have consciously selected pharmacy, we can now proceed.

Concerning pharmaceutical chemistry, the danger is the tendency for the subject to acquire parts of the training that logically belong elsewhere.

Pharmacology and Pharmacognosy

Used in the broadest sense pharmacology and pharmacognosy mean the same thing, "knowledge about drugs," but each of these terms has gradually assumed an acquired meaning. What the pharmacist needs to know about drugs is their identity, their purity and their potency; especially their potency. Our scheme of education must be designed to inculcate the theoretical information and practical techniques on which such knowledge is based. The historical background, the botanical or zoological origin, the geo-

graphical source, methods of cultivation and preparation, is knowledge that a well informed pharmacist ought to possess both for its cultural value and its commercial importance.

Pharmacology's Importance

Pharmacology is important because it provides the link in the chain of knowledge between pharmacy and medicine. A modern education for a pharmacist must be designed to strengthen this link and by bringing him into closer contact with the physician ensure his professional status. The ever enlarging field of therapeutic agents confronting the physician makes it imperative that he have assistance in finding his way through the labyrinth of complex and controversial materials. The need for an authentic and unprejudiced source of information increases daily and we must organise our training so that the pharmacist can be that source. It is his further duty to guide the public and keep people informed as to the merit of new therapeutic agents.

A knowledge of pharmacology is essential in the formulation of new medicaments such as the preparation of solutions for the eye involving considerations such as the optimum p_H for the apeutic action without loss of stability; the use of preservatives, and the adjustment of osmotic pressure; the preparation of injectable materials and choice of vehicles. I share the opinion that true pharmacology may well find its fullest development in the field of pharmacy. An adequate background of the chemistry of natural products is essential in order to make pos-sible the teaching of pharmacology on a high level and it is desirable that the pharmacognosy course be revised and modernised to contribute more effectively to this end.

We have a right to demand of any course of applied science (1) that it will provide information that will be useful to the student in solving problems, today and tomorrow, and (2) that the teaching of principles should be preferred to the communication of isolated facts.

The use of drugs has a long history, but pharmacognosy as a science dates from the beginning of the nineteenth century (the term was introduced by Seydler in 1815). Although the chemical knowledge of natural products was constantly increasing during that century, these developments had little influence on the teaching of pharmacognosy. Plant descriptions, mor-

phological and anatomical studies of crude drugs continued to be the essential fea-tures of the courses. There is, however an approach to pharmacognosy that would permit the integration of this important subject with pharmacology to the immense benefit of both. The pharmacologica actions of natural products derive from definite chemical entities elaborated by living cells. These active constituents also provide the centre of interest for the phar macognosist. They are not only of interest because of their effect on the animal body they have a function in the body of the producing organism, too, An alkaloid, glycoside, a vitamin, should be considered as part of a living organism, as functiona parts of the cells. Doubts have been ex pressed about the necessity of pharmacog nosy for the practising pharmacist. A re duction of the taxonomical morphological and anatomical emphasis in the syllabu and modernising the training by taking more chemical, biochemical and physiologi cal approach would change it into a sub ject whose significance and importance would be evident to all. Pharmacognos is pharmacy's specific and peculiar con tribution to the cause of science and i behoves us to esteem it well.

Pharmacy

Galenical pharmacy enables us to pre sent trains of thought and methods of scientific manipulation which as yet li outside the domain of equations and for mulæ. Who knows the inter-structural re lationships that exist in the simples galenical preparations? Consider the terms Tinctures, syrups, infusions, liquid an solid extracts. These and such as thes apply to a complex association of a whol mass of materials derived from the vege table structures that contain or yield then It would appear that galenical pharmac is, and always has been, based on colloids complications, and inasmuch as the nor mal structure and juices of most, if no all, plants are colloidal, it follows that th study of pharmacy as applied to natura substances is that of colloidal research an colloidal manipulation.

Within recent years such reasoning has been more generously received, partly be cause of the clearer views that now provail regarding the value of "structureless compounds, and partly because act vanced thought in pharmacy more full comprehends its inherited opportunity. Pharmaceutical effort in this field of coloidal structures, long dormant in its original home, has elsewhere been very active.

ccepting that non-crystalline substances ompose the major part of plant tissues, it ecomes the pharmacist's duty to disenangle these complicated structures and, in oing so, to provide a product which has ot undergone fundamental rearrangeents. A tentative beginning was made hen ergot, colchicum and strophanthus ed were freed from inert material by exaction with a neutral liquid before per-plation with alcohol. The use of a neual liquid as an excluder is exemplified ox bile and the manipulation of diferent strengths of alcohol to include and sclude at will is carried further in the straction of liver. Another facet of this lea is shown in the piecemeal separation f certain of the alkaloids of opium and neir reassembly to give the well known riectable products.

lo Limit

I am satisfied that given the right trainng and outlook there is practically no mit to what may be done in producing redicaments which evoke the precise herapeutic response that is desired, plus synergistic effect that frequently ccompanies this, and which are free from phibiting or damaging reactions. Some of s have been making a study of the solaaceous group of drugs. We find that, by he use of quite simple successive solvents, We can produce, in the form of colloidal cales, a substance miscible with every type f solvent and which appears to possess all he properties of the original drug. This but a beginning. By varying the solvent r slightly shifting the pH, medicaments nay be provided to give immediate or proonged action. This is shown in the cinhona and ipecacuanha group. At one time ve were inclined to look askance on the ise of sherry as a vehicle but recent experience has sent us back to examine this problem with fresh eyes.

I have said that much of this type of work lies outside the realm of formulæ and equations, but a beginning has been nade in the case of glycerin and sugar in he stabilising of tannin-containing galenials. It has been shown that the effect is proportional to the molecular concentration and can be expressed:—

T = KM

where T is the time in days, K a constant and M the molecular concentration. As ime goes on, no doubt what is obscure or impirical will be reduced to laws expresible in this form.

The discovery of the alkaloidal affinities

of hydrous aluminium silicate has opened a new field which at last is being energetically tilled by young pharmacists. Although it is not yet possible to be certain, there seems little doubt that this also will provide a method of obtaining plant substances in a purified and active form. The process of dialysis, once official in the pharmacopæia, must again take its place as an important pharmaceutical process.

Colloidal chemistry is based upon the fact that quantity is but one factor that determines chemical or therapeutic action. The condition of a substance is of first importance in its therapeutic application. Consider the case of mercury, an over-simplification perhaps, but it illustrates the point I am trying to make. Five ounces of mercury have been swallowed without appreciable result, while a few grains finely divided forms an active agent. The same effect of physical state is true of the purgative resins. The condition of the active substances will thus determine to a large extent the quality of the galenical, and this brings into prominence the relation between strength and quality. strength of a vintage wine is based on its alcoholic content but its quality is determined by quite other considerations. There is no difficulty in doubling the alkaloidal strength of a nux vomica galenical by adding a few grains of strychnine, but the question arises, has the quality been improved?

The Ideal

The attempt to standardise a preparation by a single dominating constituent is but a struggle towards a pharmaceutical standard of excellence in which the therapeutic quality should be the ideal. Until we have a far greater knowledge of the chemistry of plants, not only of the constituents but of the manner of their occurrence, and a far clearer picture of the exact therapeutic action of these constituents considered separately or in groups than we now possess, we must in our scheme of training stress the importance of quality. In doing so we shall be dealing with one of our most important pharmaceutical problems for, in addition to finding new remedial agents, we must aim at giving, to the users of medicines the wealth that comes from manipulative pharmacy and balanced research applied directly to the study of qualities. We are now upon the threshold of an era in pharmacy in which the crudeness of the past will rapidly disappear and in which our medicines will be known and valued in accordance with their actual conditions. In these circumstances it behoves us to look again at our pattern of research, and the following quotation from a lecture recently delivered by Dr. R. L. M. Synge at the Royal Institute of Chemistry, seems to be very pertinent to this matter.

"I will end by pleading for a change of emphasis in research in these fields. Glancing through Chemical Abstracts (which is a fair summary of published work), one gets the impression of an enormous misdirection of scientific effort. People are so keen to sell a new wonder drug or vitamin, or discover 'the cure for cancer, that relatively few are studying naturally occurring substances in their natural environment. Detailed chemical analysis of biological material is exacting Most of these numberless dreary papers on 'The interaction of synthetic analogues by antibiotic W and vitamin X on ABC having a Y-induced requirement for Z' are getting us nowhere at great trouble and expense. The end observation is growth or failure to grow More detailed and painstaking analysis of biological systems may not help anybody rapidly to create a market for W. X. Y. or Z. It may be three times more difficult and lead to writing only one-fifth as many papers, but in the long run the time spent will be vastly more productive both of real wonder drugs and real cancer cures. We shall also gain a new depth of understanding of the beauty, the simplicity and the complexity of living things.

The Pharmacist of the Future

It has been stated by knowledgeable persons that the future pharmacist will be chiefly occupied in counting tablets, mostly phenobarbitone, and dissolving a sterile substance in sterile water. I see a very different picture: I see the future pharmacognosist and the future pharmacologist working tegether to find and prove new remedial agents from biological sources that will be as different from our present galenicals as a spider's web is from a modern hæmostat. I see remedial agents that will require for their preparation all the knowledge and all the skill that a pharmacist can acquire.

I would like to end by addressing the men and women engaged in my own section of pharmacy. Greatly daring, we have elected to join a famous company; some of the most important men in history have been teachers. We must have courage equal to the responsibilities have undertaken.

If, however, the early training foll the line I have suggested, and if, in a ticular the young people who are equipped are diverted to other paths, work will become more rewarding.

Vote of Thanks

In thanking the chairman for his thouse provoking words Mr. G. E. Trease that those who knew Mr. Mackie a teacher would agree that he pract what he had preached in his excel address. His words should be caref weighed by all who are interested in please that he had preached in his excel address. His words should be caref weighed by all who are interested in please that he had preached he had been also be taken of his remarks on please that he had been also be taken of his remarks on pharmacognosists with a good knowledge of La and that gap in their education was to deplored. "As a pharmacognosist should like to reiterate Mr. Mackwords on pharmacognosy." Their chair concluded Mr. Trease, had demuch for pharmacy and for education.

MR. T. C. DENSTON, seconding, that those who "used Mackie" had loo forward to his address. He was str by the warmth of affection shown to Mackie in the applause he had receim Mr. Mackie was a member of the subcomittee on galenicals of the British Pharceutical Codex, and as editor of the volume he paid tribute to Mr. Mackientribution. Their chairman had lighted them with the wide aspect of address.

In reply, MR, MACKIE said how pleathe was to see with them Major Sav Peck, by whom he had been initial into the teaching of pharmacy.

The Conference agreed with acclation to send a telegram to Mr. W. Newbold (secretary of the Confere local Committee until ill-health compe him to retire) who had himself sent a tgram of good wishes to the Conference.

Newcomer's Notebook. — In a pagraph last week (p. 284) on the Bri Pharmaceutical Conference, it was I haps not made clear that the Confere is independent of the Pharmaceutical ciety. The present constitution adopted in 1922, when the Conference came associated with (though not conference trolled by) the Society. The members the Conference Local Committee who also members of the Executive Commit are the chairman and secretary.

Science Sessions

science sessions of the Conference he Great Hall of the University, ed promptly at 9.30 on Tuesday ing. The Chairman pointed out as there were a large number of rs, the time available for discussion each was limited. He appealed to bers to help by being brief, so that ssion need not be stifled.

ABSTRACTS AND DISCUSSIONS

te first two papers were taken to-er, MR. P. G. W. Scott reading the (his first contribution to the Confer-) and Mr. B. W. MITCHELL the nd. They were:-

Isoniazid Determination

LITATIVE colour reactions for identig isoniazid are given, based on re-ng properties associated with the azide side chain and reactions charristic of the pyridine. They use for side chain reactions silver nitrate, itum dioxide, 1:2-naphthaquinone-4-nonic acid, sodium pentacyanoammine pate and p-dimethylaminobenzalde-e; and for the nucleus, mercuric ride, and 1-chloro-2:4-dinitrobenzene. colorimetric methods of determina-based on reaction with (a) 1-chloro-dinitrobenzene and (b) p-dimethylnobenzaldehyde, and ultra-violet spechotometric and polarographic methods proposed. The spectrophotometric, rographic and chlorodinitrobenzene hods have been applied to the deteration of isonicotinylhydrazide in tab-Two titration procedures for isonicolhydrazide (1) with perchloric acid in

on-aqueous solvent and (2) with nitrous , are given. he author is P. G. W. Scott, of May

aker, Ltd.

Estimation of Isoniazid

en pure isoniazid the bromimetric assay e results which were significantly ner than those obtained by the iodi-ric procedure. The mechanism of the ction between isonicotinic acid hydraand bromine appears to be complete lation of the hydrazide group and forion of isonicotinic acid. The authors nd that under the conditions used in bromimetric assay, one mole of nitrogen evolved per mole of isonicotinic acid razide oxidised. They suggest that the mimetric assay should be used for the estimation of isonicotinic acid hydrazide, particularly when in the form of tablets since the presence of lactose has been shown to interfere with the iodimetric assay. The authors are E. A. Haugas and B. W. Mitchell, of Herts Pharmaceuticals,

At the invitation of the chairman, MR. H. TREVES BROWN read a communication from Dr. C. H. HAMPSHIRE, who expressed particular interest in the international aspects of the drug, especially the adoption of an international name and mentioned that reliable methods of assay would be required if the compound came to be included in the British Pharmacopæia. He submitted comments on Messrs. Haugas' and Mitchell's paper from DR. CANBACK, Stockholm. Canbäck's studies on the time function of the oxidation reaction showed that a second reaction started after forty minutes' oxidation by the iodimetric method. Contrary to the observation of Haugas and Mitchell, he found a time function in the bromimetric reaction. Figures indicated the presence of a second compound which was more difficult to oxidise than the main one.

After THE CHAIRMAN had invited discussion on the papers, Dr. G. E. FOSTER, Dartford, asked Mr. Mitchell whether he had tried his method with standard bromine solutions made (a) from bromates and bromides, and (b) according to the original method of saturating caustic potash solution with bromine and boiling off the excess bromine? He had experienced different results with the two types in sulphonamide compound assays.

Mr. E. Bowen, Welwyn Garden City, asked whether the colorimetric method had

been applied to the determination of isoniazid in biological fluids.

Mr. N. L. Allport, London, suggested that the limits of error in that method

should be ± 5 per cent.

Replying, MR. Scott disagreed with
Mr. Allport and thought that by tightening up the conditions, the limit of error would be reduced to ± 2 per cent. He had not applied the method to determina-tions in biological fluids but he thought that it could be applied.

Mr. MITCHELL, in his reply, mentioned that Dr. Canbäck had used a fairly impure sample (on which a good method of assay should be accurate). He told Dr. Foster that he had not carried out experi-

There ments on two types of solution, appeared, however, to be no excess of bro-

The next paper dealt with was:-

Chloramphenicol Series—II

CERTAIN hydrogen atoms in the propanediol side chain of the chloramphenicol molecule are replaced by a methyl group, leading in all cases to loss of antibiotic action, thus contrasting with the p-nitrophenyl portion of the molecule, where important but limited changes in structure may be effected with retention of biological activity. It is concluded therefore that the propanediol side chain represents a specific pharmacodynamical portion the molecule, while the nitro (phenyl) group represents a relatively non-specific pharmacodynamical structure. And since antibiotic action is now generally thought to be due to interference by the antibiotic in an enzyme system essential to the cellular organism, the relative non-specificity of the p-nitro(phenyl) portion of the molecule is best interpreted by the assumption that that part of the antimetabolite is not embedded within the protein matrix of the enzyme but held upon its surface. The p-nitro(phenyl) group may therefore be likened to a grappling hook which holds the antibiotic to the surface of the enzyme. Its structural requirements will therefore be less rigid than those required by the propanediol side chain which lies em-bedded in the protein matrix. The concepts formulated above thus imply a fundamental difference in the functions associated with specific and non-specific pharmacodynamical groups. It is therefore suggested that these contrasting types be differentiated by use of the prefixes of (specific) and v (non-specific).

The paper is by R. J. Collins, B. Ellis, S. B. Hansen, H. S. Mackenzie, R. J. Moualim, V. Petrow, O. Stephenson and B. Sturgeon and comes from the research laboratories of The British Drug Houses,

Ltd., London.

The paper was read by Dr. F. Hartley. MR. D. E. SEYMOUR, Welwyn Garden City, wanted to know more about biological screening work, and also asked about the replacement of the nitro group

in chloramphenicol. Dr. A. H. Beckett, Bromley, Kent, said that, in the study of the antibacterials, not enough attention had been given to the stereochemical configuration of the active molecule, and he was pleased to see a start made. Had the physico-chemical properties of the substance been investi-

the differences in gated to explain activity?

HARTLEY, replying, said that is Part I of the paper the general procedur of biological examination had been out lined. The range of organisms had been extended in Part II. The replacemen of the nitro group was difficult. Activit had been retained in some reduced nitro and in some iodo compounds but not i the chloro and bromo compounds. Re ferring to stereochemical investigations, h said that they were "intriguing," and th authors were rightly proud of their part i some disentanglement. They had foun one interesting fact: the erythro forms, a in chloramphenicol, were more solubl than the corresponding threo forms.

Mr. Mackie said he was particular attracted to the paper, and asked D Hartley to convey to the authors his an the Conference's congratulations.

The next paper was:-

Hydrocyanic Acid in Chlorodyn

A CONSIDERABLE decrease in the hydroge cyanide content of tinct. chlorof. morph., B.P.C. (chlorodyne) was observe in specially sealed control samples. Check samples drawn from stock manufacture at the beginning of 1952 and three sar ples of unknown age purchased from thre other companies were found to have a parently lost between 80 and 93 per cer of the theoretical hydrogen cyanide co-tent. The experimental evidence sugges that hydrogen cyanide is removed by r action with the carbonyl group of dextro catalysed by ammonia derived liquorice extract.

The paper is by H. A. Glastonbury at comes from the analytical control division

of May & Baker, Ltd.

DR. W. MITCHELL, London, said he hi confirmed that there was a loss of hydr cyanic acid. Had the author determin the bases without the addition of alk and had they identified the alkali as as Ammonia was sometimes add to extract of liquorice, but with a samp to which none had been added, he h obtained a recording of o.o. per cent. at monia and 0.04 per cent, on alkalising, sample of chlorodyne prepared with t same extract showed a 5 per cent. loss twenty-four hours against a 30 per ce loss in samples made with liquorice extra and digested with ammonia or caus He suggested that the loss v related to рн.

DR. D. C. GARRATT, Nottingham, said nat, if a mild alkali, such as magnesium xide, were added to the extract no loss f hydrocyanic acid was noticeable.

MR. N. L. ALLPORT, London, suggested at the author might have assumed that mmonia was normally present. DR. F. LARTLEY suggested that hydrocyanic acid light well be omitted from chlorodyne, and MR. J. H. OAKLEY agreed. MR. DAKLEY further put forward the problem of the production departments, namely the hether the hydrocyanic acid content could be adjusted to give the B.P. figure in analysis (even though the correct mount was known to have been added). Lad the acid formed another compound ist as toxic?

MR. A. F. CALDWELL, Singapore, said hat the keeping properties of chlorodyne here particularly important in the tropics. The did not think that the hydrocyanic halue. DR. F. Wokes, King's Langley, hought that cyanides might have a signormal transfer of the company of the comp

ificant biological activity.

Replying, MR. GLASTONBURY said that is observations were made on samples om many manufacturers. Observations ade at concentrations of acid equivalent oo.IN confirmed his results. He had not ade up an extract strictly in accordance ith the B.P., as he thought that that was appracticable.

THE CHAIRMAN said that the paper ressed the need for further work to be one on liquid extract of liquorice.

The next paper was on:—

Emission Spectrography

HE introduction of new techniques has aproved the accuracy of certain spectroaphic methods. Two such techniques recent development are described, amely flame photometry and the "porousip" method, and those are considered afficiently accurate for the determination major as well as minor constituents in armaceutical materials. The problems in a number of pharmaceutical ements in a number of pharmaceutical aterials are described. The given ethods show a considerable saving of me over the normal chemical methods therto employed.

The paper, which is by L. Brealey, C. Garratt and K. A. Proctor, is from e physical assay division, standards dertment, Boots Pure Drug Co., Ltd.

The reading was by Dr. Garratt.

Dr. F. Hartley, London, said that the paper was the first to be read at the Conference on the subject of emission spectrography as applied to pharmaceutical analysis. Perhaps Dr. Garratt had minimised two aspects of the subject: The initial investigation of interference by extraneous elements; and the influence of anions in the determination of cations.

DR. G. E. FOSTER, Dartford, asked whether two instruments had been used, one for flame photometry and the other for absorption work. He had himself used the porous cup technique in investigations involving minute quantities of silicon but had had difficulty in getting graphite electrodes with a small enough amount of silicon in them. Were such electrodes more easily available today?

MR. N. L. ALLPORT, London, asked whether instruments manufactured for flame photometry were capable of doing the work described in the paper. Mr. Brealey had described Dr. Garratt's instrument previously and it had seemed rather expensive. Only a large firm could afford it. As to precision, the method was very sensitive. In calculating results, multiplication by an enormous factor was required. He would like some remarks on that aspect.

MR. M. DOMBROW, Chelsea, asked if Dr. Garratt had detected impurities, particularly lead and zinc, in magnesium trisilicate. He wondered if large quantities of those metals were released in the stomach, as the large figures obtained by spectrographic methods of analysis might

suggest.

Dr. Garratt replied that the technique was intended for routine work and therefore, despite the initial cost of the instrument, it was not expensive. He did not think that photoelectric instruments could be used in the technique described. He told another questioner that there were precision and accuracy in the determination. Mr. Dombrow had misinterpreted the intention of the paper. The authors had not attempted to work out trace elements in magnesium trisilicate. They were not concerned with limit tests.

Dr. Hartley said that Dr. Garratt had given the impression that photoelectric instruments could not be adopted. They could be used in the porous cup method. Dr. Garratt agreed that that was so.

Mr. L. Brealey, Chilwell, said that he thought that Mr. Allport referred to a

filter instrument. Only potassium could be determined with precision and accuracy using such a filter instrument. They had worked with a highly dilute solution in flame photometry and that was a desirable feature. The solutions could be prepared with great accuracy.

THE CHAIRMAN called for the paper:

Stabilising Hydnocarpus Oil

THE stability of the ethyl esters of hydnocarpus oil, B.P., with and without added creosote, has been investigated by keeping samples at 40° C, for three months and at room temperature for five years. The esters when kept in completely filled wellclosed containers undergo little deterioration on storage. When exposed to air the esters rapidly develop peroxides and become acid in reaction. Such esters cause excessive irritation on injection. Addition of 4 per cent. v/v of creosote to the esters very largely inhibits the oxidation which occurs when the esters are kept in partly filled containers. Analytical data are presented for the standardisation of the esters stabilised with 4 per cent. v/v of creosote. A colorimetric method for the determination of creosote in the esters is described.

The paper, the authors of which are G. E. Foster, E. L. Kendrick, E. Walton and W. D. Williams, is from the Wellcome Chemical Works, Dartford.

DR. G. E. FOSTER read the paper.

The Chairman recalled the use many years ago of guaiacol as a stabilising agent and wondered if any recent work had been done on that. Mr. A. F. Caldwell, Singapore, said that Hydnocarpus anthelminticus oil was found better than oil obtained from India. It arrived free from peroxides. To get patients to assess the pain factor was difficult and animal experiments were not satisfactory. It had been found unnecessary to prepare esters for the oil.

Replying to the discussion, Dr. Foster said that guaiacol had been recommended as an anæsthetic ingredient in the oil in 1927. In 1940, creosote had been used for the same purpose in Brazil and it was in that use that its antioxidant effect had been observed. He declined to answer without advice from his colleagues questions from Drs. F. Hartley and R. E. STUCKEY, London, on stabilisers.

The next paper taken was:-

Determination of Ascaridole

THE methods that are available for the determination of ascaridole are briefly re-

viewed and the possible application of polarographic assay of ascaridole in oil of chenopodium and in solutions of oil of chenopodium in castor oil is investigate and the effects of various conditions upor that assay are examined. A method suitable for the routine determination of ascaridol in the above solutions is proposed.

The paper, which is by A. H. Becket and M. Dombrow, is from the pharmaceutical chemical laboratories of the school opharmacy, Chelsea Polytechnic, London.

Dr. A. H. Beckett read the paper. D. C. GARRATT, Nottinghan pointed out that the work arose from request by a committee of the Britis Veterinary Codex. It had been found contrary to suggestions, that the B.P. oi did not vary their ascaridole content. it were so critical to have such narro limits, then the toxic and therapeut dosage must be too close for veterinal practice. Polarographic methods were no specific, particularly for natural product A standardised ascaridole solution was r quired. Would the standard solution d teriorate? How did the results compa with chemical methods? What proof w there that the ascaridole was pure ar was not an isomer or a polymer?

DR. G. E. Foster, Bexley, had four that his blank determinations had be high. Had zero suppression been used?

Dr. J. M. Rowson, London, ask whether Dr. Beckett had compared polar graphic and pharmacopæial methods. H veterinary workers or pharmacologists trito evaluate anthelmintic action and corpared it with polarographic and iodimet methods?

MR. D. STEPHENSON asked about poxidation and if any work had been do on old samples and different grades castor oil with a view to ascertain interference with any peroxide the authority.

might have found?

Dr. Beckett, in reply, said that, usi the British Pharmacopæia method, o could get any result one wanted, depering upon the weight of sample taken, T results of his colleagues and himself hindicated that the B.P. method gave result from 12 to 15 per cent. too high. The were attempting to purify ascaridole other means.

Mr. M. Dombrow, London, said the polarography was a very recent development, and there had not been much tito sort out specific chemical group But polarography could be quite spec

appropriate circumstances. He and his lleagues had also had high blank results, at they had managed to reduce them.

The next paper taken was:

Determination of Riboflavine

HE investigation was prompted by the dee to find the most suitable conditions r the polarographic determination of poffavine in compressed tablets. Ampoule lutions were investigated on a more limid scale. The conditions were determined d polarography was found more reliable an the simple calorimetric procedure of e United States Pharmacopæia XII. It also more rapid than the fluorimetric, icrobiological, and spectrophotometric ethods of riboflavine estimation. tches of commercially produced tablets d two of ampoules were examined. One tch of tablets and one of ampoules were und deficient in riboflavine. It is sugsted that a need exists for more strinent control of such products. Some dee detected and estimated polarographicly. The results obtained so far show that plarography is suitable for detecting me of the breakdown products of ribowine. None of those products was found the tablet or ampoule solutions exnined. The inclusion of pyridine in a lution of riboflavine at pH 7.38 was und to prevent absorption of electrotive material at the surface of the merry drop.

The paper, from the Department of narmacy, Bradford Technical College, as by Sylvia Fowler and R. C. Kaye.

The paper was read by MISS FOWLER. DR. F. WOKES, King's Langley, said at the information obtained should have en spectrophotometric as well as polaroaphic. Dr. Wokes also asked for details the wave-length of light used.

Replying to his questions and further scussion Miss Fowler said that the ectrophotometric method had been osen because of its simplicity. The umination used was from a 60-watt lamp d it was thought that the reduction was used by the blue light of the spectrum. e told Mr. T. D. Whitter, London, at nicotinamide had not been tried as a vent.

At the afternoon session the first paper be taken was:—

Determination of Thyroxine REE methods for the determination of

sodium *l*-thyroxine are examined: Ultraviolet absorption; polarography; and colorimetric determination. In practice, ultra-violet absorption has not been found of great value in the analysis of thyroxine, and interference by tablet excipients limits the value of the method. The polarographic method with the base solution described by the authors has been successfully adapted to the analyses of thyroxine tablets, and good agreement with other methods has been obtained. The most satisfactory method was the calorimetric, based upon the nitrosation of thyroxine.

The paper—from Glaxo Laboratories, Ltd., Greenford, Middlesex—was by D. C. M. Adamson, A. P. Domleo, J. P. Jefferies and W. H. C. Shaw.

Jefferies and W. H. C. Shaw.
Mr. D. C. M. Adamson read the paper.
DR. F. Wokes, King's Langley, suggested the use of ultra-violet spectroscopic methods.

Mr. T. D. Whittet, London, asked if the method had been used for the new compound tri-iodotyrosine.

MR. M. Dombrow, London, asked how the half-wave potentials previously reported could be reconciled with the figures in the author's diagrams. How was the effect of ph on a polarographic wave measured?

DR. G. E. FOSTER, Dartford, asked if the method had been applied to the assay of thyroid tablets.

Dr. Norman Evers, Hertford, said that a debt was owed to the authors if they had provided an alternative to the method of the British Pharmacopæia. That method took up so much time and gave such poor results.

MR. Adamson, in reply, said that ultraviolet spectroscopic methods might find an application, but though it would probably work it might not be very satisfactory. The authors had not used the method for tri-iodotyrosine. To Mr. Dombrow, he explained that it was a case of a routine analyst preferring to measure rather higher than the half-wave potential. The authors were not claiming that the method worked for thyroid tablets, but it might do so.

Chromatography of Alkaloids

IV.—Assay of Solanaceous Drugs.—The authors have studied factors influencing the separation of hyoscine and hyoscyamine by elution development of a partition chromatographic column and described a simple assay for hyoscine and hyoscyamine of belladonna, stramonium

and hyoscyamus. They find that wide variation in the late of flow of developing solvent is permissible, although the rate of equilibration of the solute depends mainly on the time and area of contact of the phases and the concentration gradient between the phases. Satisfactory separations are possible over a considerable range of buffer-kieselguhr ratios alkaloid-buffer ratios at рн 7. gree of separation increases as the alkaloidbuffer ratio decreases. Variation in the buffer-alkaloid ratio is one of the chief factors determining the position of the maximum of the hyoscyamine peak. By the use of three solvents, carbon tetrachloride to separate colouring matter, ether to recover hyoscine and chloroform to recover hyoscyamine, the procedure is considerably simplified.

The authors are W. C. Evans and M. W. Partridge, from the University of Notting-

ham.

The paper was read by Dr. Evans.

DR. J. M. Rowson, London, agreed that it was necessary to standardise the drugs on the content of hyoscine and hyoscyamine. The figures for Datura tatula seemed to be out. Could the author explain that?

Dr. W. MITCHELL commented on the wide variation in alkaloid content that had been found. If the content of the official drug were to be standardised would the content of hyoscine be 0 or 20 per cent.

of the total?

Mr. J. E. Carless, Manchester, suggested that the results he himself obtained with buffered filter paper could be used as

a guide.

Replying, Dr. Evans told Dr. Rowson that the sample of *D. tatula* was regarded as authentic, and they had recorded what they found. There was extensive variation due to differences in stages of growth and other factors. The drugs should be standardised according to their best clinical value.

MR. MACKIE added that the paper indicated that it was time to "get down to the study of the living organism."

The next paper was on:—

Chromatogram Detection of Alkaloids

In the paper partition chromatography of alkaloids the $R_{\rm F}$ value cannot be accepted as a relable criterion of identity of alkaloids and some confirmatory evidence should always be sought. Iodine stains

are to some extent diagnostic and the post of more specific spray reagents merits vestigation. Paper partition chromatogra is nevertheless a valuable expedient to analyst confronted with the detection alkaloids in extracts, pharmaceutical parations and the like.

The paper is by D. N. Gore and J. Adshead, of the Beecham Research La

oratories, Ltd.

MR. GORE read the paper.

MR. J. E. CARLESS, Manchester, signsted that it would be valuable to fisolvents which would give less close values. Use of buffered filter paper mix be helpful and their disadvantage, difficulty of obtaining spots without "ting," could be obviated by using a ph g dient down the column. Of diagnor importance would be curves obtained plotting ph against R_F.

DR. W. MITCHELL, London, recomended an air brush type of atomi

for applying the iodine spray.

In reply, MR. Gore agreed with 1 Carless but pointed out that they had intended to suggest that the three solve mentioned in their paper were the anst to everything. The suggestion about gradient was useful and would be tempted by them.

The next three papers were taken

gether. They were:-

Colorimetric Assay of Digitali

When mixtures of chloroform-solu glycosides of digitalis are assayed by Baljet reaction figures are obtained wh may be three times those by biolog assay. This ratio falls with an increase potency and for digitoxin of B.P.C. pote the ratio is close to unity. It is not poss from the chemical assay of mixed gly sides to estimate the biological activ with any certainty but the assay is vaable when combined with knowledge of origin, chromatography and physical c stants of the material under examinati

The paper, which is by C. J. Eastla D. P. Lawday and E. H. B. Sellwood from the research laboratories of Aller

Hanburys, Ltd.

Studies in the Genus Digitali

I.—Colorimetric Estimation of Digital and of Preparations of Digitalis purpur Colorimetric processes have been examined for the estimation of digitoxin with a line picrate, alkaline m-dinitrobenze

kaline 3:5-dinitrobenzoic acid or the eller-Kiliani reagents, and a process is commended for the decolorisation of gitalis tinctures and the estimation with the lution of 3:5-dinitrobenzoic acid. Alkane picrate reagent may be used for the tantitative estimation of digitalis glycoles when the ethanol levels are controlled, t the reaction is sensitive to changes in neentration levels of reagents employed the decolorisation of tinctures.

.—Comparison of Colorimetric and Biogical Methods for the Evaluation of

gitalis purpurea.

close correlation between the results of passays and colorimetric estimations sing the dinitrobenzoate process) was tained in nine out of ten samples of good igitalis purpurea examined. A fair agreemt was found for four average to very or samples, and marked disagreement for e sample. It is concluded that the nitrobenzoate process for colorimetric timation may be used as a sorting test r leaf samples which have been prepared r the market in accordance with pharmapeeial instructions.

The papers are part of a series from the useum of the Pharmaceutical Society and le laboratory animals bureau of the Medil Research Council, The author of Part is J. M. Rowson, Part II is by J. M.

owson and F. J. Dyer.

MR. EASTLAND read the first, and DR. Owson the second and (in Dr. Dyer's sence through indisposition) the third. MR. MACKIE pointed out that Picot had und that a preparation of digitalis leaves th hot water showed no special variann. This perhaps showed again the value galenicals.

MR. EASTLAND said that he was uzzled by the high degree of colour obined by Dr. Rowson with alkaline crate, but he could confirm that a colour as produced when industrial alcohol was ed. Absolute or a specially pure grade alcohol produced very little colour. The screpancy between the two methods ight be greater with pure glycosidal eparations than with the cruder preparance (which include water soluble glycoles).

Dr. Rowson, commenting on the paper ad by Mr. Eastland, said that a small duction in alcohol content of the digilis preparation sometimes made a colour ange in the test equivalent to a large

duction in glycoside content.

DR. G. E. FOSTER, Bexley, said that the Baljet test was difficult, and called for the use of a photo-electric instrument.

It was a pity that the test did not record the amounts of glycoside which slowed, and those which stopped the heart, for the idea of digitalis medication was to slow the heart. Progress was being made in estimating the glycosides individually.

Dr. W. MITCHELL, London, mentioned that a method similar in many respects to Dr. Rowson's had just been described

by other workers.

Mr. A. F. Caldwell, Singapore, said that he always distilled the alcohol over alkali immediately before use in the tests. That probably removed aldehydes, etc.

DR. J. G. DARE, Kippax, pointed out that two teams had independently arrived at a conclusion about the variation of response in rats, to weight, which Dr. Rowson apparently also arrived at.

Rowson apparently also arrived at.
PROFESSOR H. BRINDLE, Manchester, asked Mr. Bartland whether samples I to 12 were prepared similarly to samples 13 to 25. He had obtained qualitative but not quantitative results by a chromatographic process. For complex mixtures the colorimetric test would probably not give a good measure of activity. Preparations centaining much gitoxin would give a good colour, but a poor biological result. The actions of digitalis on the diseased and normal heart were different. The present methods of assay are probably not the best for measuring therapeutic activity. He agreed with Mr. Eastland's remarks on the use of pure spirit in the Baljët reaction. Dr. Rowson was estimating the impurities present in the alcohol.

MR. R. L. STEPHENS, Brighton, asked whether Dr. Rowson had any experience of drying digitalis leaves with radiant heat. He had found that within 1 to 1½ minutes the water content of fresh leaves had dropped to ½ per cent. under radiant heat. The temperature of the leaf did not rise above 100-102°C., which would not hydrolyse the glycosides, but

would inactivate enzymes.

Dr. T. E. Wallis, London, said that nothing was known about the effect that weed plants might have on the digitalis colour tests.

Replying to the discussion Mr. East-LAND said that maximum colour was developed in fifteen minutes, and therefore twenty minutes was adopted as standard. The weight yield of chloroform-soluble

glycosides varied enormously-from, for example, 0.38 gm. to 1.2 gm. per lb. of dried leaf. The test was in fact a toxicity test. He told Professor Brindle that he could recover only 80 per cent. of glycosides on chromatographic columns, but had obtained "some idea" of the distribution of the compounds in the leaf.

DR. Rowson told Dr. Foster that Dr. Dyer (who was concerned with the biological side of their work) was keen to elaborate an assay process giving as nearly as possible an indication of the true therapeutic effect.

The session next dealt with:—

Studies on Tuberculostatic Compounds

SIXTY-EIGHT compounds with tuberculostatic activity including some related to para-aminosalicylic acid, and some heterocyclic compounds have been studied and their inhibitory concentrations against a standard inoculum of 0.001 mgm. of Mycobacterium tuberculosis H37Rv strain are given. No specially active derivative of para-aminosalicylic acid was although research on compounds having a condensed molecule and made in an attempt to maintain in vivo activity with a reduced dose, were not yet completed.

The paper is by E. M. Bavin, D. J. Drain, M. Seiler, and D. E. Seymour, of

Herts Pharmaceuticals, Ltd.

The paper was read by MR. D. E. SEYMOUR.

Discussion

DR. F. HARTLEY, London, remarked that much work had obviously been done on the paper. He did not think the authors were correct in their conception that the substituted aldehyde and ketone isonicotinyl hydrazones might owe their activity to breakdown to isonicotinic acid hydrazide because hydrazones would be expected to be extremely stable. authors should measure the stability of those hydrazones to oxidising agents and acid hydrolysis.

Mr. Seymour said that they thought that they might break down and that study of stability was being done. The benzaldehyde derivative was more active than INH itself in vitro although it was not so active in vivo.

The next paper was: -

Pharmacology of PAS

PROLONGED administration of solutions of sodium p-aminosalicylate, fresh and old produces retardation in the growth of ra and hyperplasia of the thyroid glands. Th effect is reversible by cessation of the drug The toxicity of the solutions to mice in creases fairly rapidly during the first mont of keeping and then more slowly. Ol solutions, unlike new, have a market pressor effect in rabbits and cats; it is no reversed by adrenolytic agents. The pre sence of m-aminophenol in the old soli tions does not appear to be responsible for the undesirable effects. No confirmation was obtained of reports that the drug has an eosinopenic and trypanocidal effect.

The authors are E. M. Bavin an Barbara James of Herts Pharmaceutical Ltd. Dr. E. M. BAVIN read the paper.

Dr. F. Hartley, London, asked D Bavin whether the authors had any ol servations on the differential toxicity b tween different hydrations in the salts. H suggested that anhydrous material might pick up some moisture.

MR. J. JACOBS, Sunderland asked who the instability was due to? Perhaps th authors could indicate the toxic compour formed. What toxic side effects were there

MR. T. D. WHITTET, London, said the one company issued solutions of sodiu PAS. It was satisfactory clinically.

SHAW inquired whether measurement of tissue concentration ha been made. Was there any indication

liver damage?

DR. BAVIN replied that they had I information on stability of either sol sodium or calcium PAS in various degre of hydration. All the material they ha used had been in solution. The ages r ferred to in the paper were to solution and not to the materials from which the solutions had been made. They wou look into the question. The toxic pri ciple was being investigated; it was pr bably some kind of oxidation produc some have suggested that it was of the nature of, he thought, an azo compound but there was little evidence of its identit Side effects such as dizziness, nause vomiting, etc., had been noted. Toxici they had measured had been in terms mortalities. Blood concentration ha seemed to remain a little high in the rat no record of distribution in the tissues ha been made although that would have bee useful. There was little or no sign of liv damage in the animals. (To be continue

gas radiator e caption at oot of p. 344.

THERE are now many methods of warming the shop and dispensary from sources concealed in walls, ceiling, or floor, and thus giving more freedom of movement for customers and staff. They tend to come into greater use as their advantages become better known and appreciated. The visible heater occupies space that might put to more profitable use for display,

rvice, or storage purposes. It therefore reasonable to prophesy that a ir proportion of the pharmacies of morrow will have built-in heat sources. veral methods of low-temperature radiain lend themselves to structural inrporation at the time of building. One ample, a system of conduits, carries heatcables laid in the floor, bonded together give mechanical continuity to earth, and vered with expanded metal or wire mesh. he claims are made for this form of floor ating that greater comfort is provided a floor temperature of from 60° to F., with a general temperature as low 55°F., than with a general temperare at 70°F. and a floor temperature at low 60° F., and further that, with this ethod of heating, only slight loss of temrature is caused by a frequently opening or. The system can be thermostatically d time-clock controlled, so that loading kes place during off-peak hours, the nerated heat being stored in the sur-unding concrete and its distribution related near the surface by use of heat-nducting wire-netting. Thermograph cords of one installation show that tem-

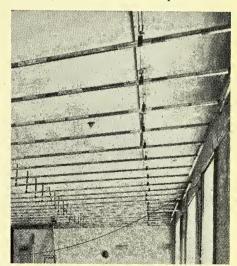
Contemporary methods of

HEATING THE PHARMACY

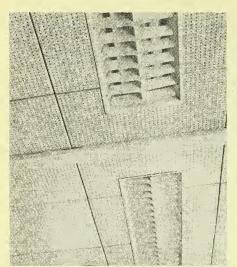
and some forecasts of likely changes

perature was maintained at approximately 60°F, at 4 ft. from the floor for 24 hours, with falls of only 2°F, five hours after power had been shut off, 4°F, after 10 hours and 6°F, after eighteen hours.

In complete contrast as to method and source is a new kind of ceiling heating, with a grid piping system operating in connection with a boiler, for which strongly competitive advantages are put forward, such as reduction of the time-lag common to other forms of heating (particularly where masses of concrete and plaster are warmed), low thermal capacity as compared with that of an embedded panel or radiator, and avoidance of expansive con-



Heating from overhead sources can be provided from hot-water pipes concealed above the ceiling.



A ceiling of aluminium panels concealing hot-water pipes. Louvred outlets for light from fluorescent lamps can be included. (Frenger Ceilings. Ltd., 19 Woburn Place, London, W.C.I.)

trols of the modulating type. The method is described as a radiant-panel heating system with an immediate response to changes in temperature. It takes the form of a prefabricated ceiling of pressed aluminium panels, concealing and supported by square pipes through which water circulates. Above the pipes is an insulating layer of guilted mineral wool, I in thick, and encased in stout paper to prevent heat from passing upwards. The panels, which are snapped into position by contact flanges, are 2 ft. square, and can be cut to accommodate irregular wall angles or structural projections and piers. As the ceilings have also sound-absorbing qualities, they can contribute to the quiteness of the premises.

The methods just described involve some kind of structural work. They are therefore of present interest only to a small minority of chemists contemplating immediate modernisation or expansion, or to fewer still who have shops projected or planned for new towns or bombed sites. Of far wider interest is the growing practice of supplying warmth for the shop from overhead sources that, though visible, are generally unobtrusive. These high-level heaters have one quality in common with the concealed systems of the types mentioned—they release valuable space floors and lower parts of walls for m chandising or professional use. Seve varieties are available for both electric a gas heating though, at the present tim greater use appears to be made of gas: the overhead heating of shops. Both typ can be obtained with luminous elements with black emitters for invisible radiation

In this class is a luminous panel hea having a cast-iron casing into which fitted a neat (non-aerated) flame burner the back of a refractory insulating bri In front of the brick is a series of tooth bars of refractory material, and at back is a double casing through which air is drawn, to be warmed in the prod before passing out through horizontal sl

above the deflector brick.

One of the gas-burning models suita for pharmacies, where a mounting hei of from 10 to 12 ft. and a ceiling cleara of 2 ft. 6 in. are practicable, is a pa heater with a vitreous-enamel finish mottled stone and a radiant consisting fourteen of the toothed-bar type of ment. This device, set at an angle to dir heat where it is most needed, can be s pended from the ceiling or projected from the wall.

Heat Only or Heat and Light

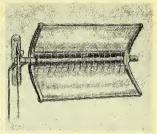
Of rather unusual interest is a di purpose model which, by the operation a change-over cock, can be made to I vide either heat only or heat and li together. This appliance has two burn only one of which can be used at one ti By bringing into service heat norm wasted in gas-lighting, the lighting but provides, in addition to illuminat practically the same amount of heat as heating burner. Upward heat loss is m mised by an insulating mattress of g fibres. The upper part of this applia is of heat-resisting grey enamel, and hemispherical base, which can be sw open for cleaning, is of heat-resisting g either clear or translucent.

Installed pharmacy alre in a equipped with electric lighting and h ing, these dual-purpose devices might p useful stand-bys in the event of power-cuts or accidental black-outs. that is not to say they are unworth consideration on their own merits.

Another overhead gas-heater has a visource of radiation in the form of a g ing cylinder of heat-resisting glass, jecting downwards from a shallow boy







Leit: An overhead gas-heater that can also be used as a lighting source. (William Sugg & Co., Ltd., Chapter Street, London, S.W.!); centre: An overhead gas-heater with a glowing cylinder beneath a cream-coloured dispersing reflector. (Radiant Heating. Ltd., 9 Barnsbury Park, London, N.!); right: An overhead electric heater with an untarnishable reflector. (Ferranti, Ltd., Hollinwood, Lancs.).

ction over 2 ft. in diameter. Heaters of stype can be operated by thermostatic, er cock or switch control. Suspended ft. 6 in. above floor level, they will ta floor space 12 ft. 6 in. square (156 ft.).

Among the electric heaters for fixing at h level is one designed to be equally table for wall mounting or for portable on the floor. If high-level fixing is ired, a metal fixing strap is supplied, ether with control cords for adjusting angle of reflection. The pivot of the omium-plated reflector is at the point balance, and the large bearing surface the swivel action ensures that the retor remains at the position to which it adjusted. This heater uses a glowing ment in conjunction with a curved tal reflector.

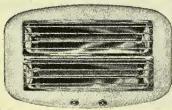
tarnishable Reflector

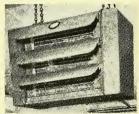
Another overhead electric heater with a bly glowing element has a reflector of untarnishable metal resembling burned copper, which the makers say is preferable to chromium because it has a warm and cheerful appearance. It does, in fact, contribute to the attractive qualities of the heater's glow, and probably also has better reflecting qualities than chromium, which is not always the best material.

A contrasting type of electric heater has a cream vitreous-enamelled front plate behind which are fitted spiral electric elements backed by a heat-insulating pad on a steel tray. These panels, which measure 2 ft. x I ft., can be supported lengthwise or widthwise on corner-frames or wall-brackets or, alternatively, by chains from the ceiling.

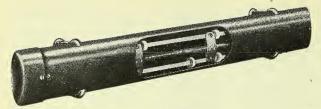
Overhead electric heaters can also be obtained which serve the dual purpose, not of heating and lighting, but of complementary heating and ventilation. With some types the fan can be operated separately from the heater, so that in the summer they can be used as cooling media. One device for combining the two functions—overhead heating with forced air circulation—comprises a heating element of nickel-chrome wire, and a motor-driven







: Combined heating and ventilating device that can be used to circulate cool air in the shop or dispensary ng hot weather (M. & J. Lossos & Co., Ltd., 31 Beethoven Street, London, W.10); centre: A compact tric heater for wall-fitting (Simplex Electric Co., Ltd., Broadwell, Oldbury, Birminghem); right: rhead electric heater with individually adjustable louvres on discharge side to control direction of air am (Hurseal. Ltd., 229 Regent Street, London, W.1).







An eval-shaped tubular heater, with portion cut away to show the element. At right: The removable for conduit connection. (Wardle Engineering Co., Ltd., Elsinore Road, Old Trafford, Manchester).

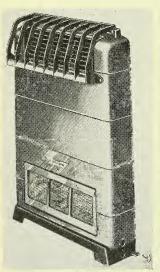
propeller-type fan. This incorporates an autothermal cutout to switch off the heating element in the event of fan stoppage, and a manual switch to cut off the heating element in hot weather.

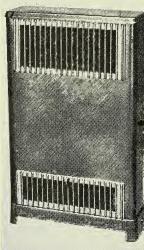
One model for wall mounting has an aluminium casing, 9 in, in diameter, and stove-enamelled blue or bronze. This dual-purpose heater has been designed for use in positions where a low air discharge is desired, so as to avoid risk of displacing light articles (cosmetic packs, or show-cards on display on the counter, for example) which tend to move or even to be dislodged altogether when a strong fan is in adjacent use. A low air discharge also

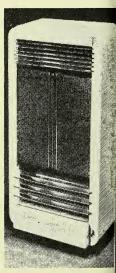
obviates the risk of draughts and air corents. Of similar construction is anoth dual-purpose device having steam inste of electricity as the heating medium, be still including the motor-driven fan. Ti is more suitable for use on larger premis

Using the same internal spiral assemb there is also a heater with a rectangul louvre-fitted front, which incorpora damper gear, enabling fresh air, recirc lated air, or a mixture of both to be of tained at will.

Another heater serving the dual prose has an air duct and fan to draw fresh air from outside. Guide plates side the casing ensure uniform warmi

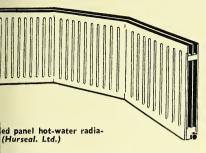






Representative types of radiators for use in normal positions on the shop floor. At left: With protec grille at top and double-duty key. (Cannon (Holdings), Ltd., Deepfields, Bilston, Staffs); centre: Bro finish with "gold" grilles and amber glass panels. (Cowper, Penfold & Co., Ltd., 6 Basil Street, Lom S.W.I); right: Ivory finish; surface kept cool by double casing, concealed tubular elements for air-heat (Simplex Electric Co., Ltd.). In title-piece on p. 341: Radiator finished in crackle black or coinage bro with chromium-plated louvres and door and governed gas consumption of 18 cu. ft. per hour. (Harper & Co., Ltd., Albion Works, Willenhall, Staffs).

all the air passing through, and the ments (protected from overheating by a rmal cut-out) are designed to give ximum heat transfer to the air and to



are its circulation at high velocity. ustable louvres are curved to deflect air with minimum friction and also distribute it in any direction desired. everal types of gas-burning appliances bine heating with ventilation. a device consists of a metal-cased comtion chamber embodying a series of persal tubes, and a burner assembly adjustable louvres in front and an tric fan at the back. A small quantity the air propelled into the heater by fan is drawn past the burners and ied into the tubes at high temperature. remainder of the air passes between dispersal tubes and becomes partly As the two currents of air pass ted. of the heater, they are merged and a santly warm flow of air results. This directed down-

ds by the adable louvres. portable heater useful auxiliary any system of eral heating. It brought use during an asonable chilly or "turned for greater fort for afterr work in the ensary or over ks in the office. he risk of accits arising from of portable ers has been

iced in some of

newer models.

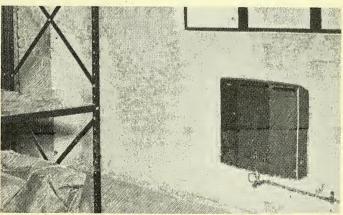
There is, for example, an electric heater with a switch that automatically cuts off if it is knocked over. Another has a safety device operating similarly, not only when the heater is knocked over, but also when it is lifted by the handle or tilted, and the current remains off until the heater is settled squarely on its feet again.

There is a portable gas heater that can be plugged in or disconnected by a simple movement, the respective actions being sufficient to turn the gas on or off. This heater is attached by a bayonet connection to a length of flexible tubing sufficiently well "armoured" to ensure that the flow of gas is not interrupted if the tube is trodden on or inadvertently subjected to moderately heavy weight,

Mobile Heater

In some pharmacies a mobile heater (one capable of being easily moved by pushing or pulling along the floor as dis-tinct from being carried) may be better than any of the portable type. One oilfilled electric radiator, in either column or panel form, can, if desired, be fitted with castors, and thus easily moved in the event of a change of layout or wheeled out of the way into a corner of a storeroom during the summer. Regardless of this optional feature, an advantage of this type of heater is that the oil, being hermetically sealed inside the radiator, retains the heat for a long period after the current is turned off.

Oil-filled, hermetically-sealed, electric radiators are, of course, also obtainable for



A balanced-flue gas convector heater installed in a storeroom. (Cowper, Penfold & Co., Ltd.)

use in fixed positions or in semi-portable They offer the advantages of central-heating without the toil of refuelling and the cost of continuous consumption. Thermostatic control ensures that the current is cut off when the desired temperature is reached and that the heater is brought into operation again when the temperature drops below a prearranged level. As a guide in estimating heating requirements, the makers of one range of these oil-filled heaters (taking 60°-65°F. as normal comfort temperature) recommend calculation on the basis of one watt per cu. ft. (thus a space 12 ft. by 10 ft. by 8 ft. high (approximately 1,000 cu. ft.) would require a 1-kilowatt heater). Though this method of estimating would probably be reliable for the dispensary, it would need some adjustment for the shop, with its frequently opening door and people constantly coming and going. The heaters are made in five sizes: 1/2-, 3/4- and 1-kilowatt for panel-type models, plugged in to 5-amp. points, and 11/2- and 2-kilowatt for column-type models plugged into 15-amp, points, both on 200-250 volt supply.

For well-proportioned pharmacies, with space to spare for heaters at floor or low wall level, there are a great variety of serviceable media. Not all of them, however, combine beauty of line or finish with functional efficiency. If a fairly prominently placed heating medium is to be used, it is worth while giving time to the selection of radiators that not only blend in style and colour with the interior fittings, but also contribute individually to the at-

tractions of the shop.

One type of electric fire for wall mounting is designed to obviate the need for cutting a recess in the plaster or other wall facing. This has a cream stove-enamelled surround, a polished aluminium reflector and either one or two glowing elements protected by metal grilles. The two sizes measure only 8 in, by 1 ft. 5 in, and 11½ in, by 1 ft. 6½ in, respectively.

Among the gas-burning floor radiators, for standing against but clear of walls or stanchion-casings or the ends of counters, there are several models combining functional efficiency with distinctive design and having finishes which make a happy blend with the materials used in equipping the modern pharmacy.

Tubular heaters are fairly widely used in shops, and they have the advantage that they can be fixed unobtrusively

against the skirting of walls.

With one type of electric tubular hea a nickel-chromium coil is laced on a m frame in conjunction with oval-shar mica insulators. This unbreakable e ment is encased in the steel tube 2 in. diameter, supplied in standard lengths from 2 ft. to 17 ft. The tube is clo at one end by a steel cap, and at the ot end a flange is fitted to form a seat a terminal base. It is held in position floor or wall brackets. The tubes can arranged in tiers, though it would rai be desirable to use more than one in the heating of a pharmacy. The mal loading is 60 watts a foot run, wh is the equivalent of 115 watts or British thermal units per square-foot of tube surface. The heat emission in lation to the area covered is said to substantially higher than that of hot-w radiators, though the surface tempera is only slightly higher. A standard fi for this type of tubular heater is o oak, but they can be supplied with extra charge in silver matt-black, mahogany or other finishes.

Low-temperature Tubes

With another system, the steel trare of oval shape, 2 in. by 1 in, if finish of rich brown heat-resisting ena. These tubes contain electric heating ments of nickel-chrome coil, continuous supported throughout the length of tube, and operating at low temperate.

The oval shape makes it possible keep the projection down to 2½ in, also ensures that 90 per cent, of the face is exposed to the air current caby the heat, with a resulting more rise in temperature after switching Brackets are provided for either floo wall mounting. The tubes are sealed terminal caps fixed at one end and movable at the other for conduit cortion. They are available with a loa of either 60 or 80 watts a foot rulengths (rising in foot multiples) fre to 17 ft.

Allied to these tubular heaters is a type having non-metallic elements he behind ribbed panels of moulded p and intended for low-level fixing or same principles as the tubular types described, but with a higher loading city to every foot length. They are in standard lengths of I ft., 2 ft., aft., and in two standard heights: and 6 in. with loading capacities va from 80 to 500 watts. They can be jutogether in long lengths, and are fix

the skirting by brackets.

TRADE REPORT

ot quotations for pharmaceutical chemicals represent the prices for wholesale quantiof standard quality. Prices of crude drugs and essential oils vary as to brand or grade.

LONDON, SEPTEMBER 3 E outstanding event of the week was a rp advance in the forward prices of IVE OIL. Information received from producing countries is that this year's ps of olives are substantially below norps of olives are substantially below norl. During the week Spain, to safeguard
own requirements, placed an embargo
the export of the oil as that country
a large consumer as well as a producer
olive oil. Shippers of French oil imdiately withdrew their offers, and
ugh the prices given below were the
ues at the time of going to press, it
possible that they will change from
to day until the position is clarified.
The amount of business transacted in
ARMACEUTICAL and FINE CHEMICALS on
ne account was about the same as in ne account was about the same as in vious weeks, but an improvement was dent on overseas account. The only ce movement was that of a reduction EMETINE, the HYDROCHLORIDE of which owered by 30s. per oz. and the BISMUTH IDE by 15s. per oz. Since foreign comition became evident in a number of rseas markets normally supplied by the ited Kingdom, British manufacturers re made a series of reductions in their edules for emetine, the present change ng the third this year. BOTANICAL DRUGS originating in hard-

BOTANICAL DRUGS originating in hardrency areas are tending to become rer. CASCARA SAGRADA, 1952 peel, was her at origin, and holders of 1951 peel e asking more for their material, ugh the prices varied considerably acding to holder and size of order. EGA is a firmer market at origin, and t material advanced by a further sixce per lb. during the week. ERGOT papears to be dearer again, though business has been reported. The reof 16s. 6d. per lb., c.i.f., represents advance of 2s. to 3s. per lb. over press ideas. Little business was transed in Spices, and most were weaker, over seing an exception. Shellac les were maintained on the same level the third successive week. Dutch kaway seeds are firm at origin. In Essential Oils market the price of fongrass fell to 6s. 9d. per lb., c.i.f., which level substantial orders were ed. Subsequently 7s. per lb., c.i.f., paid and the forward price now asked risen to between 7s. 3d. and 7s. 6d. f.). West Indian Lime and Italian itcham "Peppermint were lower.

NEW YORK, SEPTEMBER 2
GENERAL easing in chemical supplies
reflected in the past week in the

action by the Defence Production Administration in dropping twenty-seven chemicals from the scarcity list. Among those removed from controls were ACETIC ACID, FORMALDEHYDE, Borax, Boric ACID, lodine and Turpentine. Sulphuric acid has been moved from group one (the scarce items category) to group two covering those in approximate balance. Producers of tonnage chemicals agree that movement during August exceeded that for July. While crude GLYCERIN is in somewhat tight supply, buyers appear none too anxious to pay the prices being asked. Among the ESSENTIAL OILS, DILLWEED Among the ESSENTIAL OILS, DILLWEED was raised ten cents per lb. to make the lowest available material \$3.60. PIMENTO BERRY is now \$4.70 per lb. (up 20 cents), while SANDALWOOD is \$10.00-\$10.75 per lb. Lower per lb. are LAVENDER, 38-42 per cent., at \$7.25 (down 50 cents); WORM-WOOD \$6.26 (9 cents); and \$3.54EPAS at wood, \$6.26 (9 cents); and Sassafras at 60-90 cents as against a previous 60-95 cents.

Pharmaceutical Chemicals

Chloroform.—1-cwt. lots in winchesters are now 3s. 6d. per lb.; 56-lb. 3s. 6½d. In drums, prices are 3s. 4d. and 3s. 4½d.

EMETINE SALTS,—Reduced. Rates per oz. for 32-oz. lots are: hydrochloride, 240s.; bismuth iodide, 120s.

Gallic acid. — B.P.C. is 8s. 7d. per lb. for 1-cwt. lots.

GLYCERIN.—Rates for chemically pure (B.P.) are as follows:—

Minimum deliveries off contract of	Under cwt.		I cwt. and under 5 cwt.		5 cwt. and under 1 ton		i ton and under 5 ton 5 cwt.		5 tons and under 25 tons	
Per cwt.	5.	d.	5.	d.	s.	d.	s.		5.	d.
Tins			İ							
14-lb.	325	0	320	6	316	6	312	0	310	6
28-lb.	323	0	318	6	314	6	310		308	6
56-lb.	319	0	314	6	310	6	306	0	304	6
DRUMS									•	
I-cwt.		. 1	299	0	295	0	290	6	280	0
21-cwt.	_		296	6	293	0	288	6	287	0
5-cwt.	_				292	6	288	0	286	6
10-cwt.		.	_		291	6	287	6	286	0

For 25 tons and upwards (minimum delivery off contract of 2 tons), 14-lb. tins, 309s. 6d.; 28-lb., 307s. 6d.; 56-lb., 303s. 6d.; 1-cwt. drums. 288s.; 2½ cwt., 285s. 6d.; 10-cwt., 285s. Extra charges are made for smaller deliveries ex contract of from 6d. to 2s. Tins and cases free, glass packages and iron drums charged extra and returnable. Drums will be credited in full only if returned carriage forward in good condition

within four months of date of invoice; if retained beyond six months their intrinsic value only will be credited, which will not in any case exceed two-thirds of the invoice price. Terms: $2\frac{1}{2}$ per cent. monthly account, afterwards net. (Refined pale straw industrial grade is 5s. per cwt., less than above.)

OPIATES. — Home-trade rates (per oz.) for quantities of 5 oz. and upwards are as follows:—Codeine.—Alkaloid, hydrobromide, iodide, 67s.; hydrochloride and sulphate, 58s. 4d.; phosphate, 50s. 4d. Morphine.—Alkaloid, bimeconate and tartrate, 69s. 4d.; acetate, hydrochloride, hydrobromide and sulphate, 57s. 4d.

Phenacetin. — In 5-cwt. lots makers' price is now 7s. 2d. per lb., 1-cwt., 7s. 3d.

Saccharin.—In lots of 1-lb, and over B.P.C. powder is quoted at 98s, 4d, per lb.; the Sodium salt is 79s, 4d, per lb, Prices include duty and carriage.

THEOBROMINE.—The ALKALOID is about 30s. 6d. per lb., and the Sodium salicy-late, 21s. per lb. for 1-cwt. lots.

TRIETHANOLAMINE. — Commercial grade is 3s. per lb. for drum lots, ex warehouse.

ZINC CHLORIDE. — B.P.C., cake is from 4s. 6d. to 4s. 10d. per lb.; sticks, from 5s. 10d. to 6s. 2d. per lb.

ZINC SULPHATE.—B.P. in 1-cwt. lots is quoted at 1s, 4d, per lb.; 28-lb., 1s, 7d.

Crude Drugs

AGAR.—Firm. Kobé No. 1 on the spot is now about 17s. 3d. per lb.

Anise. — Chinese star is 365s, per cwt., c.i.f.

Belladonna.—Root is from 3s. 3d. to 4s. 4d. per lb., on the spot, duty paid, according to test. Leaves are from 3s. to 5s. per lb., as to test.

CAPSICUMS.—East African on stalk, are 1402, per cwt., spot, and 100s., c.i.f.; off stalk are 190s. spot.

Cardamoms.—Aleppy greens (new-crop) for October shipment are 13s. 9d. per lb., c.i.f., and spot (old-crop), 16s. 6d. Aleppy seeds are 25s. per lb. spot, and 20s. 6d., c.i.f., forward.

Cascara sagrada.—American bark, 1951 peel, is from 250s, to 310s, per cwt., duty paid as to quantity and holder. New crop, firmer at 275s., c.i.f.

Cassia Bark. — Whole on the spot is 110s, per cwt., in bond; forward, 92s, 6d., c.i.f.

CHERRY BARK. — Thin cut natural is from 1s. 9d. per lb., duty paid, and rossed, 2s. 2d., on the spot.

CHILLIES.—Quiet. Sierra Leone on the spot are 175s, per cwt.; for shipment, 135s., c.i.f.; Mombasa, 230s. ex warehouse; for shipment, 200s., c.i.f.

CLOVES.—Firm, Nominal quotations Zanzibar are 9s. 9d. per lb. for spot.

ERGOT.—New-crop offers of Portugu are 16s. 6d. per lb., c.i.f.

GAMBOGE.—Good average Siam pipe £40 per cwt., spot.

GINGER.—African on the spot is fr 115s. to 120s, per cwt., and new-cr 110s., c.i.f. Spot quotations for Jamai are from 140s, to 170s, per cwt., as quality. No. 3 for shipment is 130s., c

Honey.—Spot supplies of Australian from 105s, to 115s, per cwt., as to qu tity, and Jamaican 130s, per cwt. Arg tine material is from 122s, 6d, to 125.

MACE. — West Indian pale blade Ss. 3d. per lb., for shipment, 7s. 6d., c

Nutmegs, — Quiet, West Indian quoted at 3s. 3d. per lb. on the spot 2s. 6½d., c.i.f. for shipment. East Indian cases for shipment, 2s. 11d., c.i.f.

Orange peel. — Bitter quarters 1s. 11d. per lb., duty paid.

Quassia.—Chips on the spot are at able at 34s, 6d. per cwt.; forward of are 32s, 6d., c.i.f.

SEEDS.—ANISE.—Quiet. Cyprus is 1 per cwt, and Turkish, 145s., duty I CARAWAY.—Firm. Dutch is inclined to dearer with sellers asking 95s. per (duty paid. Celery.—Indian unchar at 1s. 10½d. per lb., spot. Cornande Market continues quiet. Spot Mornew-crop, 50s. per cwt., duty paid; sment, 41s., c.i.f. Cumin. — Market changed. Spot: Cyprus, 185s. per c Morocco, 200s., duty paid; Indian, 1 DILL.—Indian is offered at 80s. per for small lots. Fennel.—Spot. Indian, 1 duty paid. Fenugreek.—Morocco, London or Liverpool, sellers at 45s. cwt., duty paid. Mustard. — Eng 82s. 6d. to 110s., according to quality.

Senega. — Firm. Spot supplies 14s. 6d. per lb.; c.i.f., 14s. per. lb.

Shellac. — Steady. Spot quota are:—F.O.T.N., pure, 190s.; F.O. dard No. 1, 210s.; fine orange, 230, 285s. per cwt., ex-London warehouse.

STROPHANTHUS.—Kombé, 100 per is quoted at 18s. per lb. on the and Gratus, 27s. 6d. per lb.

Turmeric.—Madras finger on the is 62s. 6d. per cwt., and forward, 56s c.i.f.

VALERIAN.—Indian is offered at to 137s. 6d. per cwt., spot. Belgia about 200s., scarce.

Vanillin.—Rates (per lb.) are as lows:—5-cwt, lots, 40s.; 1-cwt., 40s. 56-lb., 40s. 6d.; smaller quantities, 40s.

WITCH HAZEL.—Leaves on the spo quoted at 1s. 6d. per lb.

Essential and Expressed Oils

Almond. — English - distilled is from s. 6d. per lb.

Amber.—Rectified on the spot is quoted

from 1s. 6d. per lb.

Anise. - Spot supplies are offered at 9d. per lb., and shipment, 8s. 9½d., c.i.f. BAY.—W. Indian is 11s. per lb. on the

Castor.—In minimum 2-ton lots the rice of B.P. quality for October delivery £206 per ton, naked, ex mill. For ovember-January, 1953, delivery the price £191. Firsts are £200 and £185 rebectively.

CARDAMOM. — English-distilled is from 25s. per lb. for spot material, and imorted, 400s. per lb. Cassia,—Spot supplies are offered from

ds. per lb.

Cedarwood.—Spot quotations for Kenya

e from 4s. 6d. per lb. LAVENDER.—French, 40-42 per cent. lina-I on the spot is from 43s. 6d. per lb. panish Spike is from 12s. to 13s. 3d.

r lb. Lemon. — Sicilian hand-pressed (4 per nt. citral) is quoted at from 40s. to 46s. r lb., c.i.f.; spot is from 40s. to 50s..

cording to quantity and holder. LEMONGRASS.—Firm. Forward quota-ons are 7s. 3d. per lb., c.i.f. Spot sup-ies are offered at 8s. 6d. per lb.

Lime.—Supplies of West Indian distilled re offered at 53s. per lb., on the spot. ther grades are from 30s, per lb.

Nutmeg.—English-distilled oil is about s. per lb. Imported oil (B.P.) is offered 30s. per lb., duty paid for drum lots.

OLIVE, -Firmer, Pharmaceutical oil in rums, spot, is from 27s. to 28s. per gall. rench virgin (maximum acidity 1 per nt.) is offered for shipment at £287, and rench pharmaceutical (maximum acidity 25 per cent.), at £282 per 1,000 kilos, i.f. U.K. ports. Spanish is not available r shipment.

Orange. — Spot offers of sweet range om 16s. 6d. per lb.

Origanum. — In original containers the ice is 14s. per lb.

Otto of Rose. — Turkish is from 400s. er oz., and Bulgarian, 450s., nominal, ot.

PALMAROSA. — Spot quotations for Forsan are 37s. 6d. per lb. East Indian is

s. 6d., c.i.f.

Patchoull. — Spot supplies of Penang e offered at 58s. per lb., and forward s. 6d., c.i.f.

Pennyroyal.—Offers for immediate shipent are 25s. per lb., landed, duty paid, r small lots.

Peppermint.—Chinese arvensis oil is firm on the spot at from 37s. 6d. per lb. Japanese, 36s.; Brazilian, 17s. per lb. in drums, shipment, 16s.; Italian "Mitcham" type, 54s. per lb. for original drums.

Petitgrain.—Paraguay on the spot is

from 21s, per lb.

PIMENTO BERRY. — English-distilled oil, s. 6d. per lb. Imported oil is from 57s. 6d. per lb. 55s. per lb., spot.

PINE.—Pumilionis on the spot is quoted at from 18s. to 20s. per lb.; sylvestris is at about 11s. per lb., and Siberian (abietis) is from 18s. to 20s. per lb., duty paid, as to holder.

Rosemary. — Spanish oil on the spot is from 6s, per lb., duty paid, as to quantity.

Sage. - Spanish is offered at 10s. 6d. per lb., spot.

Sandalwood. — Mysore oil on spot is from 69s. per lb., as to quantity; Australasian oil is offered at 45s, per lb.; West Indian, 19s. 3d.

WORLD TRADE

Pakistan Licence Changes.—Chemicals. drugs and medicines remain on list just altered, of commodities on open general licence in Pakistan

Syrian Import Restrictions. — The Syrian Government has decided to ban the importation of certain products to protect domestic industry. The products include soap products (including perfumed toilet soap).

Swiss Chemical Exports.—There was a considerable decline in Swiss exports of chemicals in the first seven months of this year although the value of pharmaceutical products increased by 5 million francs over the corresponding period in 1951.

U.S. Chlorophyll Process.—Plans for the large-scale production of chlorophyll by a new low-cost continuous-solvent process have been announced by a company at Mankato, Minn., U.S.A. The company has adapted one of its major soyabean plants to the use of this process and will use dehydrated alfalfa as the raw material.

Sulphur Find.—The discovery of what may be one of the world's largest volcanic and almost pure sulphur deposits has been reported from Mexico. The deposit, of 95 per cent. purity, is located in the crater of a volcanic hill 3,000 ft. high on Socorro Island, 370 miles off the West Mexican Pacific coast. Present production of sulphur in Mexico is less than 200 tons a day.

FAIR TRADE IN AMERICA

THE significance of new legislation (the "McGuire Act") in the United States is explained by Mr. H. E. Chapman (secretary of the Proprietary Articles Trade Association and chairman of the Fair Prices Defence Committee) who points out that the Act re-establishes "fair trade" in that country. "Fair trade" as accepted in America prior to May 1951 involved the right of a manufacturer to stipulate retail selling prices for his goods. Where a contract to observe such selling prices had been signed by one or more traders in a State, the stipulated prices were binding on all other traders who had notice of them. In that month the "non-signers" clause was invalidated by decision of the United States Supreme Court. The ruling was immediately followed in New York and other cities by an outbreak of pricecutting. A statement made by President Truman after he had signed the Bill explains the provisions of the McGuire Act, and gives his reason for signing it. The statement said that under the "fair trade" laws of forty-five States with which the Act had to do, a manufacturer of a trade mark or brand-name product could, if he wished, fix the price at which his product might be sold, and every retailer in a given State might be required to sell "fairtraded" products at the same price. Such price-fixing arrangements would, under Federal anti-trust laws, be illegal so far as they applied to interstate commerce, unless special legislative exemption were given to them. The Miller-Tydings Act, 1937, was passed to grant such exemption, but the Supreme Court held, among other things, that the Miller-Tydings Act did not sanction the so-called "non-signer" clauses of the State laws, under which retailers are bound by the resale prices set by manufacturers even if they have not agreed to be so bound. The purpose of the McGuire Act is to exempt these "non-signer" clauses from the Federal anti-trust laws, and to extend the exemption for State "fair trade" laws in certain other ways. The President said: "The main reason given for enacting the State 'fair trade' laws is to prevent some merchants from selling branded items at very low prices (often below cost) in order to drive other merchants out of business, or in order to attract customers who are then sold other items on which high prices are then charged. There is no doubt that such practices exist, and that the 'fair trade' laws prevent them to

some extent. This is the reason that the State 'fair trade' laws and H. R. 576 [the McGuire Act] have such strong support among small and independent bus nessmen—particularly druggists, and hardware and appliance merchants—who feathey cannot survive against such unfaic competitive practices. . . .

"I have signed this Act because it do have value in eliminating certain unfa competitive practices, and thereby wi help small businessmen to stay in business.

CORRESPONDENCE

Letters may be sent for publication under an assumname, but the correspondent must furnish his rename and address to the Editor.

"Summit Wrong"

SIR,—I have always said it would be and is wrong for chemists to collect the shilling levy on prescriptions. Most do tors know the family affairs of the patients. Chemists don't! Then let do tors collect the shilling from patients the know can afford to pay.

A. E. SOUTHERNWOOD.

An Acute Problem for Students

Sir,-My problem, and that of sever other students I know, is one that is b coming more and more difficult to solv I have a seat reserved at Chelsea Pol technic for the Pharmaceutical Chemi course, starting on September 29. after coming up to London three tim and spending all day visiting address each time—I have visited over seventy-I have failed to find suitable accommod tion. The girls' hostels I looked at are i equipped and badly organised, but the worst feature is that they cannot provide single rooms: to share makes it impossib to study. Boarding houses do not supp an evening meal and will not keep a roo from one term to the next unless fi board is paid during the interval. I a wondering if any chemist having a con fortable quiet home anywhere within ea travelling distance of Chelsea could off accommodation to students as payit guests? All we ask is a reasonably lar room with a table, bookshelf, reading lan and comfortable bed, with breakfast as supper every day or full board on Satu days and Sundays. They would certain be easing the minds of worried parents. Z. CLATWORTHY. Exmouth.

GUIDE TO NEW MEDICAMENTS

formation about new proprietary medicaments to be supplied principally on prescripon. Editorial recommendation is not implied. Reprints obtainable on application.

HENYLACETYLUREA

RAND NAME: PHENURONE.

ANUFACTURER: Abbott Laboratories, Ltd., Perivale, Greenford, Middlesex.

ESCRIPTION AND FORMULA: An anticonvulsant.

DICATIONS: In the treatment of psychomotor epilepsy, grand mal and petit mal epilepsies, and in the treatment of patients with mixed seizures.

OSAGE: An individual matter. Suggested initial dose is 0.5 gm. three times daily.

Phenurone should be used only if other anticonvulsants have been found ineffective. Patient and family should be warned that risk is attached to the use of the drug. Blood and other tests should be made during treatment.

ow Supplied: In grooved tablets each containing 0.5 gm. First Issued: June 1952.



UTAZOLIDIN

ANUFACTURER: Pharmaceutical Laboratories Geigy, Ltd., Rhodes, Middleton, Manchester.

ESCRIPTION: Phenylbutazone (3,5-dioxo-1, 2-diphenyl-4-n-butyl-pyrazolidine).

IDICATIONS: In treatment of rheumatic diseases.

ONTRAINDICATIONS: Peptic ulcer, cardiac disease, renal or hepatic insufficiency.

OSAGE: Intramuscularly, 1 gm. injected slowly each day, or at longer intervals for maintenance. Orally, 0.4 gm. (two tablets) two to three times daily.

ow Supplied: Ampoules each containing 1 gm. in 5 mils solution in boxes of five and fifty. Tablets each containing 0.2 gm. in containers of twenty, fifty and 100.



LEUCOTROPIN Tablets

ANUFACTURER: Silten, Ltd., Hatfield, Herts.

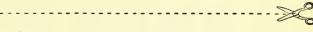
ESCRIPTION: Tablets of phenylcinchoninate of hexamethylenetetramine.

IDICATIONS: Urinary infections; arthritic and fibrositic conditions, gout, etc.

OSAGE: One or two tablets (see below) up to three times a day. May be taken alternatively in conjunction with leucotropin ampoules.

ow Supplied: Tablets each containing phenylcinchoninate of hexamethylenetetramine. 0.3 gm.; phenylcinchoninate of quinine, 0.15 gm.; starch, 0.05 gm.

In tubes of twenty and bottles of 100.



THYROPHEM

[ANUFACTURER: Armour Laboratories, Lindsey Street, London, E.C. 1.

ESCRIPTION AND FORMULA: Tablets each containing dextroamphetamine sulphate, 5 mgm.; thyroid, gr. ½. INDICATION: Obesity.

ONTRAINDICATIONS: Arteriosclerosis, mental instability, or chronic renal disease. The tablets should not be taken after 4 p.m. FIRST ISSUED: March 1952.

OSAGE: Starting dose one tablet after breakfast and one after the midday meal increased cautiously. To be taken under medical supervision.

ow Supplied: In bottles containing fifty, 100, 500 or 1,000 tablets.

NEW BOOKS

Chemical Manufacturers' Directory. — 8 x 5½ in. Pp. 193. 8s. Newnham, Cowell & Gripper, Ltd., 15 City Road, London, E.C.I. In its eighty-fourth edition the directory follows its previous pattern.

Works Committee Members' Handbook.—6½ x 4 in. Pp. 34. 2s. Industrial Welfare Society, Robert Hyde House, 48 Bryanston Square, London W.I. Basic information on the procedure to be followed at meetings of works committees are supplemented by glossaries of procedure and of management terms.

Supplement to Twelfth Edition, Bell's Sale of Food and Drugs.—8½ x 5½ in. Pp. xxiv and 115. 10s. 6d. plus postage 5d. (main work and supplement, 40s.). Butterworth & Co. (Publishers), Ltd., Bell Yard, and Shaw & Sons, Ltd., 7 Fetter Lane, London, E.C.4. The principal reason for the Supplement is to deal with the Food and Drugs (Milk, Dairies and Artificial Cream) Act, 1950, but it also considers relevant sections of the Prevention of Damage by Pests Act, 1949, and lists the principal relevant Orders since 1947.

Quantitative Chemical Analysis.—C. W. Foulk, H. V. Moyer and W. H. MacNevin. 9 x 6 in. Pp. 484. 42s. 6d. McGraw-Hill Publishing Co., Ltd., 95 Farringdon Street, London, E.C.4. Theoretical background and explanation of procedure are treated separately, with precise details in both aspects. Students will find specially valuable the emphasis laid upon, and the instruction given in, the preparation and use of apparatus. A chapter is devoted to errors in chemical analysis. The scope of the book goes beyond the standard of practical chemistry in the Pharmaceutical Society's Qualifying examination.

Text-book of Inorganic Pharmaceutical Chemistry.—C. H. Rogers, Sc.D.; T. O. Soine, Ph.D.; and C. O. Wilson, Ph.D. 9 x 6 in. Pp. 850. 71s. 6d. Henry Kimpton, 25 Bloomsbury Way, London, W.C.I. Of the forty-nine chapters in this book the first nine and the last three are devoted to theoretical inorganic chemistry with an application in pharmacy. The rest deal with the chemistry of inorganic pharmaceutical substances in common use. Much of the space is given to the requirements of monographs in the United States Pharmacopeia XIV. Notes are given on the pharmacological action of each ion as it comes to be discussed. An appendix gives the effect of \$\phi\$H on individual drugs.

TRADE MARKS

From the "Trade Marks Journal," August 20 For non-medicated toilet preparations for the tee and gums and for artificial dentures (3).

MACS, B707,646, by Macleans Ltd., Brentfor For non-medicated toilet preparations (3).

INNER-GLOW, 697,632 by Celia Carlton, Ltc London, E.C.2.

For dentifrices (3).

PHYLLODENT 708,267, by Boots Pure Dr. Co., Ltd., Nottingham.

For pharmaceutical preparations (5).

PENATES, 704,515, by Penaten Pharmazeutisc Fabrik Dr. Med. Riese & Co., G.m.b.H., Rho dorf-am-Rhein, Germany. COMPLEBIN 706,271 by Gedeon Richter (Gt. Britain), Lt London, N.W.5. WESCO, 706,294 by W. Jarn Davies (Western), Ltd., Cardiff. ORGACREAI 707,225, by Organon Laboratories Ltd., Lc don, W.C.2. APRESOLINE, 707,427, by Cil Ltd., Basle, Switzerland. STROOPAL, 708,3i by Alphonse Paul Faupel, London, E.C.1. GL TATONE, 708,441, by the International Impand Export Corporation, Ltd., Nassau, Baham PRADUPEN, 708,664, by Evans Medical St plies, Ltd., Speke, Liverpool, 19.

For insecticides (5).

CLORDOX, 704,642 by Pest Control, Lt. Bourn, Herts.

For medicated preparations for the teeth and gu and for artificial dentures (5).

MACS, B707,647, by Macleans, Ltd., Brentfor

For veterinary preparations (5).

HEXETTES, 707.755, by Cooper, McDougall Robertson, Ltd., Berkhamsted, Herts. CU. KLEEN, 708.743, by F. Hewthorn & Co., Lt London, E.15.

For analgesic preparations (5). SOLPRIL, 708,319, by Reckitt & Colman, Lt Hull.

PRINT AND PUBLICITY

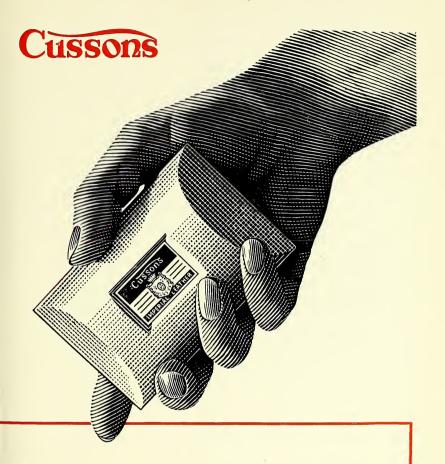
Press Advertising.—Large spaces in the national Press and in women's magazines, including full page in the "Daily Express," on Septem 18, have been booked for White Rain lot shampoo by Noma Cosmetics, Ltd., Harled Avenue, Brentford, Middlesex.—Sorex (Londo Ltd., 105 Tonbridge Road, Maidstone, Kent, advertising their Squeak mouse destroyer in "Radio Times" of September 12.

Medical Leaflets.—Leaflets, folders and book are obtainable from manufacturers as listed low:—

ROUSSEL LABORATORIES, LTD., 847 Harrow Ro London, N.W.10: "Dynandryl" (card).

THE BRITISH DRUG HOUSES, LTD., Grah Street, City Road, London, N.1: "Mycil "Mepilin"; "Advantages of Anahæmin"; "hydrocholin B.D.H." (4-p. leaflets); Mep (blotter)

WALLACE MANUFACTURING CHEMISTS, LTD., Finchley Road, London, N.W.3: Taumasthn (card)



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CHEMIST AND DRUGGIST

SEPTEMBER 6, 1952

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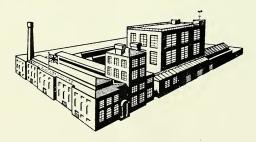
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